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ABSTRACT

Student outcomes and participant opinions in four experience-based career education (EBCE) programs were compiled and compared. Difficulties were encountered in finding or creating measures for the nine goals of the program: (1) career development; (2) self knowledge; (3) reading skills; (4) problem solving skills; (5) oral communication; (6) writing skills; (7) interpersonal skills; (8) quantitative skills; and (9) maturation skills. Reading and quantitative skills were measured by a standardized test, the Comprehensive Tests of Basic Skills. Other outcomes were evaluated by structured, free response, interviews. Findings are presented from five respondent groups: students, former students, parents, resource teachers, and school staff. Results indicated strong parental support for the program because of improved student motivation; increased maturity, responsibility, and self confidence; and improved interpersonal skills. Other groups indicated similar judgments. No significant differences in reading or mathematics achievement were found when EBCE students were compared to control groups from the same school districts. The EBCE program, in general, fulfilled its expectations. (The appended program goals, interviews, questionnaires, and data tables are presented in TM 006 525.) (CTM)

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STUDENT OUTCOMES AND PARTICIPANT OPINIONS IN EXPERIENCE-BASED CAREER EDUCATION SCHOOLS

BY

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AND

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EXTERNAL EVALUATOR'S FINAL REPORT ON THE EXPERIENCE-BASED CAREER EDUCATION PROGRAMS

VOLUME VI

Submitted to the
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EXTERNAL EVALUATOR'S FINAL REPORTS ON THE
EXPERIENCE-BASED CAREER EDUCATION PROGRAM

- Volume I Summary Evaluation of Four Experience-Based
Career Education Schools
- Volume II Experience-Based Career Education in Charleston,
West Virginia: An Anthropological Perspective
- Volume III Experience-Based Career Education in Oakland,
California: An Anthropological Perspective
- Volume IV The Academy for Career Education: An
Ethnographic Evaluation
- Volume V An Ethnographic Account of (CE)₂: Experience-
Based Career Education in Tigard, Oregon
- Volume VI Student Outcomes and Participant Opinions in
Experience-Based Career Education Schools
- Volume VII Search for and Development of Instruments
Measuring Student Outcomes of Experience-Based
Career Education Programs
- Volume VIII Behavioral Observations at Far West School:
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CHAPTER 1

EVALUATION PLANNING

The Experience-Based Career Education (EBCE) projects are operated by four regional educational laboratories: Appalachia Educational Laboratory (AEL) in Charleston, West Virginia; Far West Laboratory for Educational Research and Development (FWL) in San Francisco, California; Northwest Regional Educational Laboratory (NWREL) in Portland, Oregon; and Research for Better Schools, Inc. (RBS) in Philadelphia, Pennsylvania. The EBCE projects were originally designated by the U.S. Office of Education to implement the Second National Model in Career Education. Project operations under the auspices of the National Institute of Education (NIE) began in September 1972, and the projects completed their third year of research, development, and operations in the summer of 1975.

EBCE Program Goals

Under a mandate identified as "directed development" each project was given a common set of program parameters for its design and development activities. These program parameters included basic student population (e.g., high school aged students who represented a cross section of ability and achievement levels and sex and ethnic groups); program characteristics (e.g., employer-site locus of instruction, blending of career and academic activities and learning outcomes, individualization of instruction, student participation in decision making, and involvement of employers and community resources in policy and decision making); and general outcomes (e.g., provision of ultimate governance by institutions other than the educational laboratories, documentation for program replicability and diffusion, and establishment of a common cost accounting system). Within these parameters, the projects were free to develop their own approaches to staffing, curriculum development, credentialing, logistics, and operating procedures.

NIE planning documents indicate that the four projects were designed to examine: the viability of using employers, unions, and community resources to provide full educational services to students of high school age in a setting outside the traditional secondary school; the blending of the teaching of cognitive,

affective, and interpersonal skills with career development skills through individualized learning programs; and the increased involvement of students with adults in their working situations to improve students' understanding of the economic sector and their possible roles in it, as well as to facilitate the acquisition of life skills.

In March 1973, NIE issued a set of guidelines and requirements dealing with EBCE program development, evaluation and research for FY 74. These guidelines indicated the primary program goals for FY 74 to be a continuation of the educational delivery system prototype at each project site with the intention of achieving stable projects by the end of FY 74, internal formative and internal summative evaluation of the projects in their developmental status, and preliminary planning for replication of the projects where appropriate.

In January 1974, NIE and EBCE project personnel derived a set of goal statements that could be accepted as common for all four projects. In addition to these common goals, each project had some unique objectives not covered by the common set. The derivation of these goal statements was based in part on the results of an analysis by Educational Testing Service (ETS) of the congruence of the pupil performance objectives set forth by each of the separate projects in their FY 74 planning documents. The goal statements were grouped in nine different areas:

- Career Development Skills and Knowledge
- Self Knowledge: Interests, Abilities
and Values
- Reading Skills
- Problem Solving Skills
- Oral Communication
- Writing Skills
- Interpersonal Skills
- Basic Quantitative Skills
- Maturation Skills

A decision was made by NIE in May 1974 to refund the four projects for FY 75 in order to test the stabilized prototypes and to continue replication planning activities. Concurrently, the NIE issued a Request for Proposal (RFP) for the external evaluation of the EBCE projects, incorporating the common goals in the RFP as the EBCE program goals. The complete statement of these program goals is presented in Appendix A.

General EBCE Procedures

Pupil achievement of the intended objectives was to be accomplished at each laboratory through a series of planned experiences with identified learning outcomes. There were some similarities in the general procedures used at each laboratory in 1974-75. Three of the four projects were housed in Learning (Resource) Centers outside of the feeder high schools. The fourth project was housed in a separate facility within a public high school. A small replication field test was also conducted within a public high school in Charleston, West Virginia. Within the Learning Centers, student activities were arranged, individual and group counseling took place, students prepared materials related to their community experiences, and peer interaction (social and educational) occurred.

Student interaction with employer/community resources took place on a number of levels. While the names of the levels and duration of activity varied from one project to another, in general there were: an orientation level where students were given a brief overview of various jobs and businesses; an exploration level where students spent an average of two to three weeks (eight to twelve days) learning more about specific self-selected careers; and an investigation level where students received more intensive and lengthy exposure to particular career opportunities (up to 13 weeks with one employer/community resource).

While initial orientation activities with the employer/community resources could be done either individually or in small groups, the exploration and investigation experiences were all individualized. Students and learning coordinators at the Learning Centers jointly developed individualized learning activities which included employer/community experiences and specific learning objectives in the cognitive areas as well. These activities were developed on learning activity sheets and were derived from the expressed interests of students, the requirements they had for high school graduation and college entry (for those interested in pursuing higher education), and from project requirements. For example, a certain required number of each level of activity must be completed each year. The activity sheet then became a mutually agreed upon contract which the student was expected to complete within a given time.

In addition to learning about specific self-selected careers, students also learned the prerequisites for such careers and pursued a number of activities in the basic skills areas (e.g., writing reports, giving audio-visual presentations, computing mathematical operations, conducting experiments). Where appropriate, the employer/community resource persons assessed individual students and the products completed by students. In all cases, the learning coordinators and other members of the Learning Center staff were to review all products and determine whether the credits proposed at the beginning of the activity were in fact earned. The amount of time students were expected to spend at employer and community resource sites varied from project to project.

In addition to activities negotiated for the activity sheets, the projects also used a variety of other methods to increase the acquisition of basic skills. In Philadelphia, students were programmed through a series of individualized instruction packages if their measured basic skills were below the ninth grade level. In the other projects, tutors were provided on an "as needed" basis and some individualized materials were available. At the Far West School, a basic skills specialist was a full-time staff member. At the NWREL project in the Portland suburb of Tigard, students were expected to master 13 basic "competencies". These included: transacting business on a credit basis; maintaining a checking account in good order; providing adequate insurance for self, family, and possessions; budgeting time and money effectively; responding appropriately to fire, police and health emergencies; making an application for employment and successfully holding a job; operating and maintaining an automobile; filing state and federal income tax forms; and participating in the electoral process. Completion of these competencies was certified by employer/community resource persons.

Each of the four projects was run in cooperation with, but independent of, the local school district. The exception was the field test site in Charleston, West Virginia, which was run by the Kanawha County Schools Systems. In most projects, credits from activities were converted into the credit format required by the feeder high schools, and in three of the four projects diplomas were granted from the home high schools to graduating seniors.

More specific descriptions of each of the four EBCE schools are provided in the chapters of the report that deal specifically with each of the four projects.

Development of Evaluation Strategies

The Request for Proposal (RFP) for the external evaluation of the EBCE projects identified four purposes for the study, and was quite detailed in the specifications for the conduct of the study. The four purposes were:

1. to identify and develop, where necessary, valid and reliable instruments to assess the effectiveness of this individualized approach to secondary education;
2. to provide programmatically useful information on the relationships between student performance and the kinds of experiences that students received in the EBCE programs;
3. to identify and analyze existing constraints on and limitations in carrying out the EBCE projects, including constraints internal to the project (such as special facilities, special training of project personnel) and those constraints external to the project (such as possible limited supportive services from employer/community resources and linkages with the traditional school system);
4. to determine the feasibility to expand the use of employer/community resources in the projects and the necessary conditions under which expansion is possible.

The design for external evaluation of the EBCE projects included extensive pre-post and some post-only measurement. Common instruments were to be used to measure achievement of the identified common NIE goals across all projects. Identified respondent groups included: experimental, control and comparison students; former EBCE students; parents; and employer/community resource groups. Experimental and control students were to be identified in advance by each project through random selection of students from the total applicant pool. Comparison students were to be identified by the evaluation contractor through random selection of students from work education programs offered by the feeder high schools, from vocational high schools, or from school-supervised career education programs.

In its proposal to conduct the external evaluation, ETS accepted the prescribed design, expressed some concern about the probability of selecting or adapting existing instruments or developing new instruments for the measurement of student achievements in time for pre-testing, and proposed to rely heavily on observational procedures in its measurement of the desired achievements outside the academic areas. Observational procedures previously developed by Barker and associates (Barker, 1968) and by Triandis (Triandis, 1971) were especially recommended, particularly for the attitudinal and maturational variables. These observations were to be carried out at several points over time during the experimental year.

The ETS suggested distribution of measurement procedures over five general content areas is shown in Figure 1.

Figure 1. SUGGESTED DISTRIBUTION OF MEASUREMENT PROCEDURES OVER GENERAL CONTENT AREAS

<u>Content Area</u>	<u>Standard- ized Tests</u>	<u>Question- naires</u>	<u>Rating Scales</u>	<u>Observa- tions</u>	<u>Inter- views</u>
Academic Skills					
Verbal	X		X	X	
Quantitative	X		X	X	
Subject Matter	X				
General Knowledge and Capabilities		X	X	X	X
Attitudes, Goals, Perceptions		X	X		X
Interpersonal Skills			X	X	X
Student Background		X			

Instrument Search and Revised Design

In an effort to identify existing instruments that showed some promise of being useful in the assessment of EBCE student outcomes, ETS conducted two computer searches through the ERIC* Clearinghouse on Tests, Measurement, and Evaluation; a computer search through PASAR**; and a hand search of the ETS Test Collection File located in Princeton. While a number of instruments having titles indicating possible relevance to career education were identified, none of them were judged to be appropriate to the specific intended EBCE outcomes and processes as described in the RFP, and as understood by the ETS project staff after visits to the four EBCE school sites.

When it seemed evident that existing test instruments could not be used for this evaluation project, a thorough review of the library of developed simulation exercises and games located at Rutgers University was undertaken in a further effort to identify potentially useful procedures, both in terms of the judged relevance of existing exercises to the EBCE goals, and in terms of the available information about the demonstrated reliability or validity of the exercises. The only simulation exercise that seemed to merit any detailed consideration was one developed at ETS (Katz and Norris, 1974) named Simulated Occupational Choice. Both the developers of this exercise and the ETS project staff considered this simulation to be much less than adequate for the project purposes, however, as Simulated Occupational Choice had been developed to provide information and experience to students in developing decision making capabilities, rather than to indicate the achievement of instructional program objectives.

While these various instrument search activities were being carried out, ETS staff members were also visiting each of the EBCE sites to gain a more complete understanding of the particular purposes and procedures that constituted the several EBCE schools. Additionally,

*Educational Resources Information Center, National Institute of Education, Washington, D.C.; the ERIC Clearinghouse on Tests, Measurement, and Evaluation is located at ETS, Princeton.

**An information system of the American Psychological Association; a direct access terminal is located at ETS, Princeton.

ETS staff were exploring the mechanics and procedures that could be used in the selection of the most relevant comparison groups at each of the four sites. Generally, the project staff believed selection of such comparison groups to be quite unfeasible for a variety of reasons.

The time required for these instrument searches and the exploration of alternatives for the selection of comparison groups meant that the design specification for pre-testing with outcome measures other than standardized measures of basic skills could not be satisfied. Nor was it possible to obtain the information from the projects and local school districts that would be absolutely essential if comparison groups of students in other career or vocational education programs were to be sampled and tested. In the fall of 1974, therefore, the planned design of the external evaluation was modified extensively. In effect, the information collection effort would be restricted to documentation of the EBCE processes and to assessment of outcomes for the randomly chosen EBCE and control group students, with the assessment to be based on post-only measurement.

Revised Evaluation Strategies

This revised design was to be implemented employing three different strategies. The first involved the use of systematic observation and documentation of the procedures implemented in the four EBCE schools by independent observers using predetermined observation coding schemes. The second involved the use of qualified ethnographers to describe the total time-space environment at the four schools as seen by participant observers. The third strategy to be employed was the development of student outcome measures or indicators that could be administered at the end of the year to both EBCE students and to the randomly chosen control group students.

Systematic Observation

To implement the first of these three strategies, ETS proposed that systematic observation of students at resource sites and in the learning centers be made by trained observers using procedures for recording their observations in a prescribed way that would permit subsequent analysis and summarization. The observations were to be made on a time sampling basis at three points during the school year. The development of the observation procedures by the contractor was essentially a task

of adapting procedures to the EBCE setting that had previously been used in a number and variety of classroom situations.

The observation procedures as adapted were pilot tested at three of the four EBCE school sites in the late fall of 1974, and preliminary results from the pilot test were reported to NIE and the project evaluation staffs of the four EBCE schools in January 1975. This time sampling observation approach was rejected for use as part of the total EBCE program evaluation procedures by the staffs of three of the four EBCE schools, and by the NIE staff after the preliminary report had been reviewed by an external specialist panel convened by NIE for this purpose.

The evaluation staff at the Far West School (FWS) expressed the view that the procedures had merit for further use, however, and requested the continued use of the procedures at their school. This systematic observation of a sample of FWS students was, therefore, completed for a second time sample. Administrative considerations at the school precluded observations for a third time sample, as had been planned by both ETS and FWS evaluation staff. This continuing use of the observation procedures was essentially a methodological and feasibility study of the systematic observation procedures. The results of the study are presented in Volume VIII.

Ethnographic Observation

The second strategy, that of using ethnographers to describe the school environments, was implemented according to very general specifications set forth by NIE following a meeting with the four EBCE project directors and project evaluation directors. The ethnographers were to focus primarily on: the EBCE school processes; the activities of the students as they carried out their individual projects; and the interactions of the students among themselves, with school staff, employer/community resource persons, and with counselors and others with whom they came in contact during the school day. Although this approach was described as being primarily descriptive, it was suggested that the ethnographers might be able to arrive at some judgements about the changes in the behavior of the EBCE students during the period of observation, particularly in the areas of career awareness, interpersonal skills, affective skills, and life skills.

The ethnographic approach was planned in some detail by ETS after consultation with Dr. Robert B. Textor of

the Departments of Education and Anthropology, Stanford University. It was recognized, however, that in the final analysis the details of the studies to be done at each EBCE school rested with the ethnographer employed for that site. The decision was made by ETS to identify qualified ethnographers who would be employed by ETS, but who would serve in the role of independent collaborators on this aspect of the external evaluation effort, rather than as ETS staff members.

The selection of and arrangements with the independent collaborators were completed by December. Dr. Charles B. Drucker and Ms. Shel Anderson, both formerly associated with Stanford University, were chosen to serve as a two-person team of collaborators to conduct the ethnographic studies at the Far West School in Oakland, California, and at the McGwigan School operated by the Appalachia Educational Laboratory. Agreements were also made for Dr. Edward C. Durgin to study at the school being operated in Tigard, Oregon, and for Dr. David Smith and Ms. Janet Theophano to undertake the study to be conducted at the Academy for Career Education in Philadelphia, Pennsylvania. The four ethnographic studies could not be effectively started until the second semester of the 1974-75 school year at the four sites.

The reports on these four ethnographic studies are presented separately in Volumes II through V.

Assessment of Common Outcomes

The third strategy to be employed, measurement of outcomes for EBCE and control group students, was initiated by planning for the development of one or more paper and pencil measures that could be administered in a common fashion across the four projects and the two student groups. This effort used, as a starting point, work done by Dr. Bert Westbrook of North Carolina State University, a member of the Advisory Committee formed by the contractor when the evaluation project was initiated. Dr. Westbrook had, for some time, been conducting an ongoing review of goals, objectives, and student evaluation procedures in use by a number of career education programs throughout the country. By November 1974, he had identified fifty-four objectives that seemed to be adopted quite frequently by such programs, and had classified items from six available instruments in terms of these fifty-four objectives.

The staff of the EBCE evaluation project analyzed the extent of congruency between Westbrook's work and the objectives as stated or implied in the EBCE goal state-

ments that had been incorporated in the RFP. This analysis indicated that four of the EBCE goals were congruent with combinations of objectives identified by Westbrook. The test items that Westbrook had classified under these objectives were identified by the ETS project staff as prototypes for measures to be developed. Fifty-six prototype items were identified in this way, three of the goals being tentatively defined by 16 items each, and the fourth goal by eight items. The ETS project staff proposed that additional items similar to these four sets of prototypes be written and pretested, in order to obtain reliable measures of the four EBCE program goals judged congruent with objectives common to other career education programs.*

The staff of only one of the four EBCE projects responded in writing to this proposed approach, and this response was generally negative. In a meeting of the evaluation staff of all four projects held in February 1975, however, the consensus was that no acceptable paper and pencil measures of the EBCE goals could be developed. These staffs recommended that an in-depth student interview schedule be developed as the only procedure that could provide satisfactory information about the attainment of the EBCE program objectives.

Final Evaluation Design and Instrumentation

In any evaluation plan, the cooperation of those who have responsibility for the welfare of the students is essential if information is to be obtained from students, parents, and others involved in the program being evaluated. In view of the rejection of the proposed systematic observation and common student outcomes assessment strategies by the NIE and EBCE school staffs, it seemed evident that the end-of-year student interview would be the only means by which any data regarding important student outcomes and relevant processes (other than that provided by the ethnographic studies) could be obtained. Although the limitations of the student interview procedure were known, the time expended in exploring and negotiating the various alternatives had been so extensive that ETS staff concluded they had little choice but

*A more thorough discussion of this work and of the instrument search mentioned above is presented in Volume VII.

to discontinue work on the alternatives and to focus solely on the design of the various interview schedules, if any information was to be obtained.

The final data collection design, then, may be described in very general terms as shown in Figure 2.

Within the framework of this general design, there were variations among schools with respect to both the details of the instruments and the samples for which data were collected. The instruments themselves, and the school-to-school variations in instruments are described in the next chapter. The selection of the samples and numbers of students for whom data were collected in each school are also described there.

Figure 2. FINAL DATA COLLECTION DESIGN

<u>Instrument</u>	<u>Time</u>	<u>Respondent Groups</u>
Comprehensive Tests of Basic Skills (CTBS)	Pre and Post	All cooperating EBCE and Control Students
Student In-Depth Interview	End of Year	Samples, EBCE and Control students
Parents of Enrolled Students, Questionnaire or Interview	End of Year	Cooperating parents, all 1974-75 EBCE students
Former Students Interview (Telephone)	Year Following	All/graduates, transfers and dropouts who could be located
Resource Persons Interview or Questionnaire	End of Year	Samples of resource personnel willing to be interviewed

CHAPTER 2

DATA COLLECTION INSTRUMENTS AND SAMPLE SELECTION

Current Student Information

Standardized Tests

Very soon after the external evaluation contract was awarded, representatives from the four EBCE project evaluation staffs, NIE, and ETS arrived at an agreement that only reading and arithmetic skills could be measured within the time limits and other constraints that would exist at the time of data collection. It was further agreed that all four of the projects would administer the Reading Comprehension, Arithmetic Concepts, and Arithmetic Applications sub-tests of the Comprehensive Tests of Basic Skills (CTBS) at the beginning and end of the year. This decision by consensus reflected the considered judgements of the project staffs as a result of their past work in reviewing and using measures of basic skills, and their knowledge of the circumstances in their various school districts relevant to the ease of collection of data for control group students. The choice of the level and form of the test to be administered was left to the project staffs, since it was possible to obtain scaled scores for use in analysis which are on a continuing scale independent of level and form.

The following brief descriptions of these three tests are based on material in the Examiner's Manual, Form R, Level 4, pp. 7-8 for the CTBS published by CTB/McGraw Hill (1969). Copies of the tests themselves are, of course, available from the publisher.

The Reading Comprehension Test is composed of 45 items which "... measure the student's ability to comprehend the meaning of ideas by paraphrasing; to interpret what is read by identifying the main idea, perceiving relationships, drawing conclusions, and making inferences; to extend interpretation beyond stated information and recognize the author's intention. The test is composed of blocks of items which test the reading of such selections as articles, stories, poems, and letters."

The Arithmetic Concepts Test has 30 items which measure". . . the ability of the student to recognize and/or apply the appropriate concept and technique (method, operation, structure, formula, principle); the ability to convert concepts expressed in one numerical, verbal, or graphic form to another form; the ability to comprehend numerical concepts and understand their interrelationships; and the ability to organize all facts in more complex problems."

The Arithmetic Applications Test consists of 20 items". . . in which the emphasis is placed upon problem-solving. The tasks required in this test involve the ability to comprehend the problem, select the appropriate method of solving, organize all facts in total problems of a more complex nature, and solve for the correct answer."

The raw scores on all of these tests may be converted to grade equivalents or placed on an Extended Standard Scale. As mentioned above, this latter scale was to be used so that the projects could administer the particular levels and forms each considered most appropriate. Based on information provided in the Technical Manual for the test, the estimated reliability of these tests within a particular grade, as estimated from the correlation between the standard scores on parallel forms, is probably in the range between .75 and .80. The standard error of measurement is about 30 points on the standard score scale. The estimated reliability of these tests for the student groupings used in this evaluation study is probably about .85 to .90.

All of those involved in the decision to use the standardized tests recognized that they had many limitations as measures of the reading and arithmetic skills stressed in the EBCE projects. The limitations were apparent when one considered the EBCE stress on non-school experience sites as the locus for creating an awareness of the need for basic skills, and, in some instances, on actually improving the skills through on-site work. Nevertheless, the need to obtain some indication of student accomplishment and to test the hypothesis that EBCE students achieved as well in basic skills as control students, despite being in a program which did not emphasize traditional instructional procedures, was also recognized. Therefore, the use of instruments commonly accepted in a number of school programs was accepted.

Current Student In-depth Interview

This interview was designed to obtain information from the students both about the outcomes of their current school programs in areas important to the EBCE program goals and about the various school procedures that the students had found to be useful in reaching their current stage of development. In considering the interview design characteristics, weight was also given to the fact that the questions should be asked of students, insofar as possible, in a way that would be meaningful to them without regard to whether they were members of the control group or had spent one or two years in an EBCE school. Within the latter group (EBCE school students) the questions should be meaningful to the students regardless of which of the four schools they had attended, and free of the particular school and project terminology they knew.

Since the external evaluation project was to provide information on the achievement of at least some of the common project goals, it was judged to be necessary to have some kind of model from which the interview questions could be derived. It seemed likely that the use of such a model would assist in producing questions that would have some reasonable direct relevance to the stated goals of the projects, and to the underlying rationale for the experience-based approach to career education. An idealized model of career decision making was developed that identified seven major stages, the first five of which might be reached, to varying extents, by students in grades 9-12. This model is described in some detail in Volume VII; it suffices to say here that it was of use in defining the general structure of the interview.

Two kinds of questions were included in the interview. Five questions were intended to get outcomes information about the progress the student had made in each of the stages of the career decision model. The other seven questions were intended to solicit information about those procedures (school and non-school) which were seen as most helpful in making this progress.

The fact that career decision making is such an idiosyncratic activity combined with the individualized student focus of the EBCE schools indicated that the questions relevant to outcomes should be focused on careers or jobs currently of interest to the student being interviewed. In other words, given that the interview was to be oriented to career decision making, it seemed important to let each student choose the career topics around which the interview was to be centered. It was recognized that this individualized approach to the

interview would make meaningful group analysis of the resulting data difficult to complete. Nevertheless, it seemed the only approach that would be consistent with the individualized nature of the EBCE schools.

The interview was opened with a brief explanation of its purpose, assurances about the confidentiality of the information provided, and a request for written consent that the interview be recorded on tape. If a student did not wish to have the interview recorded, the interviewer proceeded to the first question, with no indication that there was anything inappropriate about the refusal.¹

Self-reported interest and knowledge. In the first question, the students were asked to provide self-ratings of their interest and knowledge in each of twelve career areas. The question was intended to provide an indication of the extent to which students believed they had obtained information about career areas of possible interest, and the extent to which they might have begun to differentiate their interests. The twelve career groups used were those identified on the basis of the Project TALENT five year follow-up study (Flanagan et al., 1973). The rating scales to be used ranged from 1 through 5, and the students were given the option of marking "Don't know" for the interest rating.

When the interview schedule was developed, it had been hypothesized that EBCE students would mark "Don't Know" for fewer areas than the control group students, would show greater intra-student variability in both interest and knowledge because they would be better able to differentiate among the areas, and would have a larger number of areas for which their self-reported interest and knowledge were consistently high. So few students in any of the groups for which data were analyzed chose "Don't Know" as a response, however, that it was not a useful indicator of any kind. The intra-student variability measures were found to have very low (.23 - .41) internal consistency within the groups used for this study. The counts of the number of areas on which students rated themselves high in both interest and knowledge had moderately high (.60 - .65) internal consistency, and counts of areas of low interest or low knowledge had relatively high (.72 - .82) reliability.

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1. A copy of the suggested introduction to the interview, the consent form for tape recording the questions, and the forms to be completed by the students during the interview, are included in Appendix B.

The detailed data and methods of analyses used to obtain these estimates of the internal consistency of these measures are presented in Volume VII.

First career interest and useful processes. When the students had provided these self-ratings, the second question asked was, "Is there a career or way of making a living, that you think you might be particularly interested in now?" The answer was noted, and the third question was posed: "I'd like to know how you learned about this career. What are some of the things you've done to learn about _____ [career name]?" This was the first of the questions designed to provide information about what students had found to be useful to them in learning about careers.

This question was stated to allow for entirely free responses, to avoid possible cueing of particular kinds of responses. The interviewers were encouraged to do some probing if responses were not immediately elicited, and most of them did probe. The suggestions for probing were structured in terms of the anticipated organization for coding of responses. For example, the first suggested probe was: "There are many ways students may learn about careers. Do you recall any activities at the Learning Center or employer sites [at 'school' for the control group students] that enabled you to learn about this career?" Subsequent probing suggestions were directed to activities outside of the school, and to whether the students had done any reading that had been helpful to them in learning about the career of interest. The interviewers were also asked to seek some corroborating evidence in support of the activity named as being helpful. For example, after the probing instructions directed to reading were given, the interviewer was told: "If a student says 'Yes', probe for the kinds of reading and the number of citations or titles."

As explained below, this same set of questions about activities useful in learning about careers was asked after students had named a second career of interest to them, if they had a second choice. The free responses from both sets of questions were coded using categories developed for each question on the basis of a sample of student interviews. These categories are defined in the tables in Appendices C, D, E, and F, where the data obtained for each of the four schools are presented. Information on the agreement between codes assigned by two people working independently is given in Volume VII. The agreement between the coders was judged to be sufficiently high to support use of the coded responses for the evaluation study.

Career requirements knowledge. When this information relative to activities useful in learning about the first career of interest had been obtained, the student was asked in question 4 to identify the requirements for the career. To obtain this information, the students were given a form listing 56 educational, personal, and other characteristics that might be requirements for the career of interest. The students were then asked to mark each of these requirements as "Necessary" or "Helpful for Advancement" or "Not Necessary" or "Don't Know" in terms of their first choice career. The suggested wording the interviewer was to use in presenting this question was:

"I know that you probably haven't had time to learn all you would like to know about the requirements for this career. I'd like you to tell me, though, what you think some of the requirements are, based on the information you have been able to gather so far. [Give the student a copy of the Career Requirements Sheets, which are printed on green paper.] These sheets have a list of characteristics or requirements. Obviously, there is no career that requires all of them. Some careers may require very few of them. And for many careers there is very little known by anyone about what the requirements are. Would you go through the list, thinking in terms of this career in which you have expressed interest, and indicate whether you think an item is Necessary for entrance and success, or Helpful in Gaining Advancement, or Not Necessary. Of course, in many instances you may say that you "Don't Know." There will be no penalty for you in giving such a response. Don't feel that you have to spend a great deal of time on this, but I would like you to indicate what you think or know about these characteristics as they relate to this career."

At the time this question was prepared, it was hypothesized that EBCE students would be better informed about the requirements for the careers of interest than would the control group students, or at least they would make fewer incorrect responses. In planning for the use of the student information, it was speculated that for students who have had varying opportunities and amounts of time to learn about careers, there could be four different kinds of career requirements knowledge: information and misinformation about what is necessary; and information and misinformation about what is not

necessary. Thus, prior to analysis of the data for comparing EBCE and other students, some of the implications of the use of one or more of these scores were explored. This score development work was further complicated by the fact that students responded for careers of their choice, and by the very real difficulty of determining what characteristics are and are not necessary for entry in a particular career or job. The details of the exploratory development work done to obtain career requirements scoring keys, rules for obtaining scores, analyses of the various scores considered, and estimated reliabilities are described in Volume VII. As discussed below, students were asked to complete this form for a second career of interest to them, and both sets of responses were used in the score development work.

When this exploratory work was done, the decision was made to derive two scores for each student to be used in the analysis of the data on student outcomes. Scores were based on the average of the two sets of responses (first and second career choice) if a student had two careers of present interest. The two scores were: Percent Correct "Necessary" and Percent Correct "Not Necessary." The estimated reliabilities of these two scores, based on the correlation between first and second career choices, range between .67 and .74 for the Correct "Necessary" and between .57 and .81 for Correct "Not Necessary."

Second career choice questions. In the fifth question, students were asked: "Is there a second career that you think you might also be interested in? Would you say this is as interesting as the career we just talked about, or would it be a second choice?" Of course, the second of these questions was not asked if the answer to the first was "No," as was true for some students.

Questions 6 and 7 were the same as questions 3 and 4 discussed above, but directed to the second career named. They were not asked if the student did not name a second career.

Question 8 asked the student to explain some of the reasons why the first named career was preferred over the second, if that was the case, or to say what would be considered in making a choice, if the two careers were presently of equal interest. As with questions 6 and 7, this was asked only if a student had a second career of interest.

Student self-image ratings. After the students had completed the information about their second career of interest, they were asked in question 9 to rate themselves

as being "High", Average" or "Low" on the same 41 Personal Characteristics that had been used in the Career Requirements form. (The Career Requirements form had 56 characteristics listed, but 15 of these were educational or other characteristics.) The students were to make these self-ratings by first using "Others in Your Age Group" as a referent, and then by using "Adults You Have Known" as the referent. For both referent groups, students also had the option of marking "Don't Know or Not Sure."

This rating form was included to obtain three kinds of information: information that might be of use in addressing the program goals related to improved self-knowledge as a result of the EBCE processes; information that would reflect the increased opportunities EBCE students had to become acquainted with a more diverse group of adults; and information that could be used to examine consistency between student understanding of personal strengths and weaknesses and their choice of careers. This kind of self-rating was admittedly a somewhat superficial approach to such complex questions, but no other device appeared to be available for these purposes, given the restrictions operating in this situation.

At the time the interview schedule was developed, it had been hypothesized that the EBCE students would choose "Don't Know" as a response less frequently than would control group students. Because of the nature of the instrument, no more sophisticated hypothesis relevant to the goal of improved self-understanding seemed warranted. So few students in any of the groups chose this response, however, that this indicator of self-understanding does not appear to be useful for testing any hypothesis. Estimates of the internal consistency of the average self-ratings, using the different referent groups (peers and adults) were obtained, and were in the range .87 to .92 for the projects where this question could be used in the interview.²

Counts of the characteristics on which the ratings relative to peers were higher than those relative to adults were obtained, and similarly, counts of numbers on which they rated themselves lower were obtained.

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2. Members of the staff at the Academy for Career Education objected to the use of this question on the grounds that it was too superficial in its approach to self-image, and asked students to give information that was not appropriate to the study.

The third of the purposes to which this rating was directed, that of examining consistency between self-ratings and requirements for careers of interest, was approached by simply obtaining counts of the number of characteristics on which students rated themselves high which were thought by the students to be "Necessary" for their first career of interest, and counts of characteristics on which they rated themselves low which were thought to be "Not Necessary." The internal consistency estimates for these two counts were in the range .75 - .85 and .30 - .70, respectively.

The next question (question 10) asked students to go through the list of personal characteristics used in the self-ratings, and to mark with a "+" those on which they thought they had changed in a positive direction during the past year, and to mark with a "-" those on which they thought they had changed in a negative direction. If students felt there had been no change, no mark was made.

Student plans and opinions. Question 12 was concerned with student plans for the next year. The question varied, depending on whether students were in the 12th grade or in lower grades. It also branched depending on whether they would be continuing in full-time education, working full or part time, and so on.

The last question in the interview had to vary in detail for the EBCE and control group students, but, in effect, students were asked if they would still apply for admission to the EBCE school if they had a chance to reconsider their application, and what some of the reasons attached to this decision would be.

Interviewer ratings. The interviewers were asked to make two kinds of ratings of the students as soon as possible after the interview was completed. One was a rating on Oral Communication Skill. This skill was one of the program objectives that appeared to be given considerable stress by all four projects, and the student interview seemed to provide an excellent opportunity to assess the skill(s) in a fairly realistic setting. The second rating was concerned with the student's Career Planning Attitude. This attitudinal objective also appeared to be given weight by all of the projects, although the definition of the attitude domain was somewhat vague.

The definitions of the points on these two rating scales are given at the end of the interview schedule in Appendix B. The correlation between two independent ratings of these characteristics for a sample of students

was about .60. More detail on the procedures used to obtain these estimates, and on the results of the rater reliability study is given in Volume VII.

Non-Student Information

As indicated in Chapter 1, four respondent groups are the populations of interest: current EBCE and control students; former EBCE students; parents of currently enrolled EBCE students; and resource organization personnel. The development and content characteristics of the three separate data collection instruments for the former students, parents, and resource personnel are discussed here.

Specifications for the content of the three instruments were provided in the Request for Proposal for third-party evaluation. Prototype instruments, based upon these specifications, were developed by the ETS staff and reviewed by NIE and each of the four EBCE project staffs. All instruments and procedures were then submitted to and cleared by the Office of Management and Budget.

As a result of the review process, each of the instruments for non-student groups was tailored into separate forms designed to meet more readily the concerns of each of the four EBCE projects. A core of items critical to the common assessment of all four projects was not modified in these separate forms. All instruments used in the evaluation are presented in their complete form in Appendix B.

Resource Organization Contact Person Interview

The primary purpose of this instrument was to obtain information regarding the perceptions of resource persons concerning the EBCE program, its effectiveness, and its impact on the resource organization. Items attend to the development of career education activities within the resource organization; the support provided the resource organization by the EBCE staff; the impact of the EBCE program on the resource organization; operation of the EBCE program within the resource organization; effectiveness of the EBCE program; capability of retaining or expanding the program within the resource organization; perceptions of program impact on students; and descriptions of training provided students.

Former Student Telephone Interview

The primary purpose of this interview was to obtain former students' perceptions of: the value of the EBCE program as they experienced it; the kinds of benefits, if any,

they feel the EBCE opportunity has given them; and the facility with which these students are engaging in the occupational and educational opportunities available to them.

Items attend to: work experience since leaving the EBCE program; the kind of job, if any, they currently have; job satisfaction; future job aspirations; educational experiences since the EBCE program; educational expectations; income expectations; likes and dislikes regarding the EBCE program; perceptions of career-oriented and academic skills obtained through the EBCE program; and recollections of the training and environment to which the former students were exposed during their tenure at the EBCE program.

The interviews were conducted with both graduates and non-graduate former students.

Parent Questionnaire

The Parent Questionnaire contains items which gather information related to parents' perceptions of their children's participation in the EBCE program; parents' contacts with EBCE staff and activities; discussions between parents and EBCE students regarding the program; impressions of what parents feel their children have learned and how important they feel these things are; how effective parents feel the EBCE program to be in bringing such learning about; perceptions of parents regarding their children's experiences in the EBCE program as compared with experiences in other schools; and parents' perceptions regarding the EBCE staff, approach, and program quality.

Sample Selection

The original general plan for this external evaluation was based on the expectation that information would be obtained from all the currently enrolled first year students who had been randomly assigned to experimental and control groups at the time of student recruitment and application. Further, information was to be obtained from parents of all students currently enrolled in the school, from former students, and from a sample of those adults in the business and community resource agencies who had been instrumental in providing the various kinds of experiences that were fundamental to the new programs. As the plans for the kinds of information to be collected were developed and revised, these general plans for the choice of respondent groups also were revised and refined.

When the decision was made to rely almost entirely on the use of an in-depth student interview for obtaining information from the currently enrolled students, the staffs of the four projects set limits on the numbers of first-year students who could be interviewed. These limits were established separately by each of the four projects. ETS then proposed that some or all of the students who were in the second year at each of the four schools also be interviewed, since it seemed likely that the responses to some of the questions in the interview might be a function of student maturity and length of time in the new program. The staffs at two of the schools agreed to permit this additional interviewing. As a result of these various changes in plans, it was necessary to identify interview sub-samples for the current students at each of the four schools. It was agreed in principle that the interview subsamples would be chosen at random from the experimental and control groups, with stratification by sex and grade.

With respect to the other three groups of respondents, the general plan was to use a mailed questionnaire for all the parents of current students, telephone interviews for all former students, and to interview the resource persons by telephone or in person as they chose.

There were, however, a number of instances in which these general plans for collection of non-student information also had to be modified. In some instances, the results of follow-up procedures for non-respondents suggested that additional ways of obtaining the information would have to be employed for some of the respondents, if the desired rate of return were to be obtained. These variations are discussed in the sections below, where the procedures employed for each respondent group at each school are described.

Current Student Interviews

As mentioned above, the staffs of each of the four projects were responsible for the identification of first year students in the experimental and control groups, using some method that would insure the randomness of the two groups of students. In each instance, this identification of the two groups had taken place prior to the award of the contract for external evaluation, and ETS had to assume that the group selection had been conducted randomly. Each of the four schools also enrolled additional first year students for a variety of reasons, but none of these students were included in the groups for which ETS collected data.

Some of the EBCE schools had also identified experimental and control groups for study in the previous year (1973-74). These schools might still have had such groups identified among students who would be in the second year at the

EBCE school during the period of the external evaluation study. No effort was made by ETS to collect data for second year control group students. Further, when ETS did collect data for students enrolled in the second year at a school, no distinction was made between students who had originally been admitted for an experimental group and those who had been admitted for other special reasons. In fact, after reviewing the numbers of second year students at the two schools where these students could be interviewed, the decision was made that ETS would attempt to interview as many of them as would cooperate.

Thus, the first and second year students differ from each other in a number of respects in addition to the fact that they had attended the EBCE schools for different lengths of time. Some of these differences are discussed in the later chapters of the report where student data are presented. The remainder of this section is concerned only with the selection of the sub-samples of the first year experimental and control group students who were to be interviewed.

McGwigan School and Charleston High School (AEL). Data were collected for students in two schools associated with the AEL. The reasons for this, and the differences in AEL responsibilities for the two schools, are discussed in the Introduction to Chapter 3. Suffice it to say here that experimental and control groups had been identified at the time of student application to the McGwigan School. There was no control group associated with the Charleston High School group.

The AEL staff indicated that 30 students at the McGwigan School could be interviewed. These 30 students constituted 55% of the experimental group identified as being enrolled in the school at the time of interview sample selection. This same percentage was used to determine the interview sample size for the control group and for Charleston High School. The rosters provided by the AEL staff of students in each of the three groups included information about the students' sex, but did not include school grade. The students in each group were, therefore, stratified by sex and assigned numbers taken from a table of random numbers. The students with numbers from one up to the desired quota were contacted first for the interview. If a student in this group would not or could not be interviewed, he or she was replaced by the next replacement student of the same sex in random number order.

Information on the established quotas, and on the numbers of students interviewed is given in Table 2-1. The specified quotas were obtained in all three groups. One additional female student in the experimental group was interviewed because a replacement had been contacted and interviewed when

TABLE 2-1

INFORMATION ON FIRST-YEAR STUDENT INTERVIEW SAMPLING

McGwigan School and Charleston High School

<u>Group</u>	<u>Sex</u>	<u>Grade</u>	<u>Students Reported Enrolled</u>		<u>Random Interview Sample Quotas</u>	<u>Students Inter- viewed</u>	
			<u>f</u>	<u>%</u>		<u>f</u>	<u>%</u>
McGwigan Experi- mental	Male	11	*			4	13
		12	*			9	29
		11 & 12	23	42	13	13	42
	Female	11	*			6	19
		12	*			12	39
		11 & 12	32	58	17	18	58
	M & F	11 & 12	55	100	30	31	100
McGwigan Control	Male	11	*			6	29
		12	*			3	14
		11 & 12	22	56**	9	9	43**
	Female	11	*			3	14
		12	*			9	43
		11 & 12	17	44**	12	12	57**
	M & F	11 & 12	39	100	21	21	100
Charles- ton EBCE	Male	11	*			1	8
		12	*			4	31
		11 & 12	9	36	5	5	38†
	Female	11	*			1	8
		12	*			7	54
		11 & 12	16	64	8	8	62
	M & F	11 & 12	25	100	13	13	100

* Information on grade level of students was not known at the time of sample selection, and the group was stratified on sex only.

** Because of the marked differences in the proportions of males and females in the experimental and control groups, the quotas for the control group were reversed. The sex breakdown is similar for the experimental and control groups interview sample.

† Difference due to rounding.

it was thought that one of the initially chosen students would not be available for an interview. In order to achieve the quotas, the following numbers of replacement students were interviewed: experimental group, three; control group, two; and Charleston High School, four.

In summary, the sampling procedures were carried out as planned, and the students interviewed may be considered as random samples from their respective groups, essentially stratified by sex. Assuming that the experimental and control groups were identified randomly from the applicant group, the experimental and control group students interviewed may be considered to have been only randomly different at the time of enrollment.

Far West School (FWL). The Far West School staff indicated that 30 students could be interviewed. This constituted approximately 50% of the experimental group students listed on the rosters supplied by the FWL staff at the time the interview sub-sample was chosen. The experimental and control group students were stratified on the basis of sex and grade level as reported on the rosters supplied by the FWS staff. The grade distribution of these groups was markedly skewed, however, with approximately two-thirds of the students in the 10th grade. When the 11th and 12th grade experimental students were stratified by sex and grade, the quotas were very small. The school staff was approached about the feasibility of arranging to interview all of the 11th and 12th grade experimental group students, and they agreed that this could be done. These arrangements for additional interviewing were made after initial contacts for student interviewing had taken place, and no effort was made to augment the number of 11th and 12th grade students in the control group to be interviewed. The 30 control group students interviewed constituted about one-third of the total control group.

Information on the numbers of first year students in the various groups, and on the interview quotas is given in Table 2-2. The interview sub-sample was chosen by the assignment of random numbers to all students in each grade and sex group. If 10th grade students initially identified for interviewing would or could not be interviewed, they were replaced by the next student of the same sex in random number order. Of course, if a student in the 11th or 12th grade would or could not be interviewed, no replacement was possible, since every effort was made to interview all of these students. Only one 10th grade male student had to be replaced, and one 12th grade male student was not interviewed.

At the time of sample selection, the best information available from the school showed that 18 second year students should be interviewed. Interviews were actually conducted with 17 of these students.

TABLE 2-2
INFORMATION ON FIRST-YEAR STUDENT INTERVIEW SAMPLING

Far West School

<u>Group</u>	<u>Sex</u>	<u>Grade</u>	<u>Students Reported Enrolled</u>		<u>Random Interview Sample Quotas</u>	<u>Students Inter- viewed</u>	
			<u>f</u>	<u>%</u>	<u>f</u>	<u>f</u>	<u>%</u>
Experi- mental	Male	10	14	24	7	8	20
		11	7	12	7	7	18
		12	<u>3</u>	<u>5</u>	<u>3</u>	<u>2</u>	<u>5</u>
		All	24	41	17	17	43
	Female	10	23	39	11	11	27
		11	5	8	5	5	12
		12	<u>7</u>	<u>12</u>	<u>7</u>	<u>7</u>	<u>18</u>
		All	35	59	23	23	57
	Both	All	59	100	40	40	100
Control	Male	10	20	23	7	7	22
		11	6	7	3	3	9
		12	<u>3</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>6</u>
		All	29	33	12	12*	37*
	Female	10	39	44	11	12*	38*
		11	11	13	3	4	12
		12	<u>9</u>	<u>10</u>	<u>4</u>	<u>4</u>	<u>12</u>
		All	59	67	18	20	63
	Both	All	88	100	30	32	100

Note: In addition to the 72 first-year students interviewed, 17 second year students were also interviewed; results are presented separately for the two groups in Chapter 4. Six other FWS students were interviewed with the same schedule for a separate study. Thus, interviews were conducted with a total of 95 FWS students.

* Differences due to rounding.

A review of the information presented in Table 2-2 will show that there were disproportionate numbers of 11th and 12th grade students interviewed in the experimental group relative to the control group because, as noted above, the control group was not augmented. The decision not to augment the control group interview sample reflected a trade-off in terms of available time and money for the interviewing process. The school had agreed that the 18 second year students could be interviewed, and it seemed most useful among the available options to obtain information from this second group. In addition, six students who were members of the experimental group, but who had not been chosen in the random sub-sample, were in fact interviewed as part of a separate study of behavioral observation methodology. (Data for these six students are not reported in this volume.) Thus, a total of 64 FWS students and 30 control group students were to be interviewed. It was not feasible to devote the time necessary to locate, contact, and interview the additional 10 control group students that would be needed to balance the grade/sex distribution for the control group.

It would have been possible to use statistical weighting methods to adjust for the differences between the experimental and control group interview sub-samples with respect to grade. In view of the relatively small differences between the groups, the assumptions necessary for weighting, and the relative importance of other kinds of errors in the data, such adjustments did not seem justified and were not made.

In summary, the stratified random selection of first year students was carried out as planned. The resulting interview samples of the experimental group is somewhat overweighted with 11th and 12th grade students relative to the control group, but the effects were judged to be too small to justify any statistical adjustment of the results. Assuming the experimental and control groups were randomly defined initially, the interview sub-samples may be considered to be randomly different.

Community Experiences for Career Education (NWREL). The project staff indicated that only 20 experimental group students could be interviewed; this constituted about two-thirds of the experimental group students. At the time the interview sub-sample was selected, information on the composition of the control group could not be obtained by ETS. The initial sample selection was, therefore, done by stratifying the experimental group by sex and grade, and assigning random numbers to the students. One of the 20 randomly selected experimental group students had dropped out of (CE)₂ by the time of the interview, and was replaced by a student of the same grade and sex who was next in order on the random number sequence. (The student who had dropped out of (CE)₂ was interviewed as a former student.) Information on the numbers of experimental group students, quotas, and number of students interviewed is given in Table 2-3.

TABLE 2-3

SUMMARY INFORMATION ON FIRST-YEAR STUDENT INTERVIEW SAMPLING

Community Experiences for Career Education

<u>Group</u>	<u>Sex</u>	<u>Grade</u>	<u>Students Reported Enrolled</u>		<u>Random Interview Sample Quotas</u>	<u>Students Inter- viewed</u>	
			<u>f</u>	<u>%</u>	<u>f</u>	<u>f</u>	<u>%</u>
Experi- mental	Male	11	10	32	6	6	30
		<u>12</u>	<u>6</u>	<u>19</u>	<u>4</u>	<u>4</u>	<u>20</u>
		ALL	16	52	10	10	50
	Female	11	11	35	7	7	35
		<u>12</u>	<u>4</u>	<u>13</u>	<u>3</u>	<u>3</u>	<u>15</u>
		ALL	15	48	10	10	50
	Both	ALL	31	100	20	20	100

Note: Information on the composition of the control group could not be obtained at the time of interview sample selection. See text for further explanation of procedures followed.

While an ETS staff member was on site for student interviewing, extensive effort was made to identify and locate control group students. For this purpose, ETS defined the control group as consisting of those students who had applied for admission to (CE) but who had not been offered admission on the basis of random identification of the experimental and control groups. It was learned that there were 18 students who satisfied this definition, but only nine of these students could actually be interviewed. Three of the nine who could not be interviewed had moved out of the area, and the other six could not be located as being in any school or college. In this effort to track down the control group students, the ETS staff member worked very closely with, and had good cooperation from the Tigard High School Staff (the school of student origin). After all reasonable effort had been made to locate the control group students, ETS concluded that current student interview data could be obtained for only half of the control group.

In the process of identifying and locating the control group students, ETS learned that an additional 22 students in the applicant group had been offered admission to (CE)₂ on the basis of random identification of the experimental group, but had either decided not to enroll, or had enrolled and then withdrawn from the program before the end of the first month. ETS staff decided to interview as many of these students as possible, in order to supplement data available from the control group. Only eight of this group could be interviewed, however. One of the remaining 14 had moved out of the area, two refused to be interviewed, and the others could not be located as being in any school or college.

In analysis and presentation of interview data, the nine control group students and the eight "Other non-(CE)₂" students were kept separate. It was judged by ETS staff to be inappropriate to merge the data from the two groups, since the offer of admission and refusal, or acceptance and subsequent withdrawal by some students necessarily meant that these students would be different from the control group. It should be noted that the NWREL evaluation staff disagreed with this decision by ETS, and did merge the data for the two groups for their own analyses.

In summary, a randomly chosen sub-sample of the experimental group students was interviewed. Only half of the experimental group could be located for interviews. While some statistical tests of the differences between the experimental and control group have been made, their interpretation must be considered to be very tentative because of the many unknown factors which may have operated in the implicit selection that has occurred for the control group. Data are also presented for an additional group of non-(CE)₂ students, but only a little more than a third of this group could be interviewed.

Academy for Career Education (RBS). The RBS evaluation staff indicated that 70 students in the experimental group could be interviewed. This constituted 40% of the experimental group students, which was adopted as the desired percentage of control group students to be interviewed. The experimental and control groups were stratified on the basis of grade and sex, and random numbers assigned to students within each group. The quotas established for each group, grade, and sex are shown in Table 2-4, with other information on the characteristics of the groups. Lists of students to be interviewed were provided to the ETS staff member responsible for organizing and managing the current student interviewing. These lists indicated which students were to be approached first, according to the random selection, and the order for choosing replacements if students would not or could not be interviewed.

For a variety of complex reasons, the current student interviews could not be conducted within the schedule originally set. In fact, the actual interviewing could not be initiated until after the school year had been completed. Efforts were made to contact as many students as possible, and to work out arrangements for providing transportation to an interview location during the summer. Nevertheless, difficulties in locating students, in logistics for the interview, and the time constraints for completing the interviews meant that many fewer students could be interviewed than had been planned when the samples were selected.

A review of the available information on the order in which the students interviewed were actually chosen does not show any evidence of systematic bias. Further, statistical tests of the grade and of the sex distributions of those interviewed and not interviewed show no statistically significant differences. Thus, there is no reason to believe that the interview sub-sample is biased in any definable way. The circumstances affecting the interview, and the relatively small proportions of the experimental and control groups actually interviewed (16% and 20% respectively) do, however, indicate that the current student data available for this school are much less satisfactory than is the case for the other three sites.

Staff of the Academy agreed that students in the school for the second year could also be interviewed. The information available at the time interview sub-samples were chosen showed that there were 37 such students, and the decision was made that interviews should be conducted with as many of them as possible. The problems affecting the scheduling of interviews mentioned above also operated in the case of the second year students. Interviews were actually conducted with 11 second year students. This constituted 30% of the group.

TABLE 2-4

SUMMARY INFORMATION ON FIRST-YEAR STUDENT INTERVIEW SAMPLING

Academy for Career Education

<u>Group</u>	<u>Sex</u>	<u>Grade</u>	<u>Students Reported Enrolled</u>		<u>Random Interviewed Sample Quotas</u>	<u>Students Inter- viewed</u>	
			<u>f</u>	<u>%</u>	<u>f</u>	<u>f</u>	<u>%</u>
Experi- mental	Male	9	19	11	7	3	11
		10	13	8	5	4	14
		11	17	10	7	1	4
		12	<u>5</u>	<u>3</u>	<u>3</u>	<u>2</u>	<u>7</u>
		All	54	31	22	10	36
	Female	9	27	16	11	5	18
		10	22	13	9	5	18
		11	56	32	22	6	21
		12	<u>14</u>	<u>8</u>	<u>6</u>	<u>2</u>	<u>7</u>
		All	119	69	48	18	64
	Both	All	173	100	70	28	100
	Control	9	3	4	2	1	7
		10	1	1	1	1	7
		11	11	15	4	2	14
		12	<u>6</u>	<u>8</u>	<u>2</u>	<u>1</u>	<u>7*</u>
		All	21	29	9	5	36
	Female	9	3	4	2	1	7
		10	7	10	3	1	7
		11	32	44	13	4	29
		12	<u>9</u>	<u>12</u>	<u>4</u>	<u>3</u>	<u>21</u>
		All	51	71	22	9	64
	Both	All	72	100	31	14	100

Note: In addition to the 42 first-year students interviewed, 11 second-year students were interviewed.

* Difference due to rounding.

In summary, stratified random samples of the first-year experimental and control groups at this school were identified, but the interviewing could not be carried out as planned. There is no evidence of bias, and where appropriate, statistical tests of some of the interview data have been made. The conclusions reached using these data probably merit less confidence than is true of the other three schools, however. A somewhat larger proportion of second-year students could be interviewed, and results for these students may be more representative of the total group than was the case for the first-year students.

Parent/Guardian Questionnaires or Interviews

The general plan for the external evaluation of the four EBCE schools included the use of a questionnaire to be mailed to the parents of all students enrolled in the schools in 1974-75. The list of parents' or guardians' names and addresses were to be provided by the schools. All parents (or guardians) whose sons or daughters had been enrolled in the school beyond the initial orientation period were to be contacted regardless of length of time in the school, reasons for entry, or any other special factors. The general plan also indicated that there would be a follow-up mailing to non-respondents after a reasonable length of time, and a final effort to contact the potential respondents to complete the questionnaire by telephone. All questionnaires were to be returned directly to ETS.

These general plans were followed, although some variations had to be negotiated with the school staffs. These variations, and other explanatory comments, are described on a school-by-school basis below. Information for all four projects on the numbers of parents to be contacted (as obtained from rosters provided by the projects at the time of the mailing), number of respondents, and rates of return are given in Table 2-5. Since some parents had more than one child in a school, the number of parents may be less than the number of students in a school.

It can be seen from Table 2-5 that the rate of return of information by the parents was in excess of 80% at all but one of the schools, and that the percentage of parents for whom data are available is in excess of 50% at all of the schools. Brief discussions of the variations from the general plan at each school follow.

McGwigan and Charleston High School (AEL). In discussion with the AEL and McGwigan School staff, it was concluded that better information would be obtained if the parents were interviewed, rather than asked to complete a

TABLE 2-5

PARENT/GUARDIAN INTERVIEW SAMPLE INFORMATION

ALL EBCE SCHOOLS

	<u>Number of Parents</u>	<u>Number of Parents Contacted</u>	<u>Number of Usable Response Forms</u>	<u>Percent Return</u>	<u>Usable Forms as a % of Parents</u>
<u>AEL</u>					
McGwigan School	73	50	49	98	67
Charleston High School	22	13	11	85	50
<u>FWL</u>					
Far West School	91	91	78	86	86
<u>NWRL</u>					
Community Experiences for Career Education	53	53	42	81	81
<u>RBS</u>					
Academy for Career Education	261	261	139	53	53

questionnaire. Additionally, these staffs wanted additional and different kinds of information from parents than was needed by ETS for its study. Therefore, an agreement was reached that an ETS staff member would contact and interview in person two-thirds (50) of the parents, and the AEL staff would interview the other third to obtain information they wanted. The groups of parents to be interviewed by each agency were chosen randomly from the total student body.

In view of the additional time required to obtain the parent interview, it was also decided to limit the parent interviewing for Charleston High School students to the parents of the 13 students who were to be interviewed. As discussed in the previous section, these students had been chosen randomly from the total group enrolled in the Charleston High School EBCE program.

Far West School (FWL). Parent questionnaires were mailed to all the parents in June 1975. Non-respondents were contacted by telephone several weeks later, and reminded about the questionnaire. If they said they no longer had it, or had not received it, a second copy was mailed to them. This same procedure was followed about a week later for those parents who still had not responded. In a third telephone call to non-respondents, the parents were asked if they would be willing to provide the information over the telephone, and 30 of the parents chose to respond in this way. In this third attempt to obtain information, two or three calls were made during the day and in the evening to reach the parents who never responded. The effort to reach these parents was discontinued in early September in order to meet schedules for processing the data.

Community Experiences for Career Education (NWREL). The director of this school required that all contacts with parents had to be made by staff of the school, rather than ETS. However, it was agreed that the initial questionnaires could be returned by mail to ETS. When a reasonable time had elapsed after the first mailing of the questionnaire, ETS supplied the school with the names of the non-respondents, and telephone follow-ups were made by a (CE)₂ staff assistant. ETS delayed processing the parent questionnaire data as long as possible, but the decision was made in early September to proceed with the processing of the responses available. Two parent questionnaires were received after the processing was completed and were not included in the results. Thus, the actual percentage return of usable questionnaires was about 80% for this school.

Academy for Career Education (RBS). Many of the problems which delayed conduct of the current student interviewing also affected the mailing of the parent questionnaire. When a reasonable period of time after the mailing of the first questionnaire had elapsed, the effort to obtain the information

through a telephone interview was initiated. The processing of data for this school was postponed for some time to allow for this telephone interview, but the rate of return was still appreciably less than that for the other three projects.

Former Student Telephone Interviews

In planning the external evaluation study, it was decided to rely primarily on telephone interviews with former students. This decision was made in recognition of the fact that these former students would probably be highly mobile, and that forwarding of mail might, at best, require extensive time, and, at worst, might never occur. The efforts to reach the student started with the telephone numbers and addresses provided by the schools. When students could not be traced from these telephone numbers, effort was made to identify possible new phone numbers of parents through directory assistance. If no contact at all could be made by telephone, a final effort was made to mail the interview form to the last known address.

In tracing the students, long distance calls were made where there seemed any possibility of locating a student. In other words, the efforts to contact students were not limited to the areas where the students had lived while attending school. No overseas calls were made, but calls to army and other services bases within the continental lower 40 states were made.

Information on success in obtaining the telephone interviews is provided for all four schools in Table 2-6. ETS had to rely on the schools as the source of information for identifying former students. There appeared to be considerable variation among and within the schools in the definition of former students, particularly those classified as non-graduates of the school, but ETS was not in a position to resolve any discrepancies. As indicated in the note for the table, this problem was particularly evident for two schools. Similar problems may have existed at the other two but were less evident, since lists of former students were prepared especially for ETS use.

There were no general classes of problems that differed across projects, other than this one of definition of former students. There is, therefore, no separate discussion of sampling problems for each of the individual projects.

It seems evident that the use of available information obtained from former students may be of limited value in learning about the current operations and effects of the four schools. Many of the former students were in the schools in

TABLE 2-6

FORMER STUDENT INTERVIEW SAMPLE INFORMATION

ALL EBCE SCHOOLS

	<u>Number to be Interviewed</u>	<u>Number Interviewed</u>	<u>Percent Interviewed</u>
McGwigan School			
Graduates	126	111	88
Non-graduates	<u>8</u>	<u>7</u>	88
	134	118	88
Far West School			
Graduates	34	24	71
Non-graduates	<u>13</u>	<u>6</u>	46
	47	30	64
Community Exper- iences for Career Education			
Graduates	26	19	73
Non-graduates	<u>50*</u>	<u>28</u>	56
	76	47	62
Academy for Career Education			
Graduates	70	32	46
Non-graduates	<u>117*</u>	<u>30</u>	26
	187	62	30

*These figures are "best estimates" but may not be accurate. Differing information was provided at different times by the schools, and in some instances students disagreed with what the schools reported.

the first year or two of completely alternative schools. Student accounting procedures had to be given relatively low priority. The schools were faced with major organizational and administrative problems, and a very heavy burden of curriculum and materials development. The schools and programs that operated in the 1974-75 school year are very different from those in prior years. The students who will become former students in a study that might be conducted two years from now will also be reflecting educational experiences that are very different from those described for the former students in this study.

Resource Person Interviews or Questionnaires

The general plan for the collection of information from Resource Persons active in the program during 1974-75 was to use a single questionnaire or interview form for samples of respondents at the four project sites. The potential respondents were to be given the option of completing a questionnaire or responding in a telephone interview. As the instruments were developed and arrangements negotiated with the project staff, however, these general plans had to be revised extensively. The arrangements and information on sampling are discussed below on a project-by-project basis.

McGwigan School and Charles High School (AEL). The best information available indicated that there were 80 sites or persons who had been used as resources for the experience learning by students at McGwigan School, and 22 used by students at Charleston High School. As in the instance of the parents, the AEL staff wanted to obtain from the Resource Persons information different from that of interest to ETS. The decision was made, therefore, to obtain information for ETS from half of these persons or agencies. The sites were arranged in descending order of frequency of use, and alternate sites or individuals were chosen. The AEL staff also believed that much better information would be obtained in face-to-face interviews than with the use of questionnaires or telephone interviews. ETS agreed to conduct personal interviews.

Information is given in Table 2-7 on numbers of sites, contacts, and respondents. This table shows that usable interview data were obtained from 88% of the McGwigan Resource Persons and 82% of the Charleston High School Resource Persons. In the former group, interviews could not be scheduled with three RP's. One said there had been no involvement in the program; another said the Resource Person who had actually worked with students was no longer at the site; and the third RP gave no reason. For the Charleston High School RP's, one could not be contacted, and another would not agree to an interview because the experience as an RP had been unsatisfactory.

TABLE 2-7

RESOURCE PERSONS: INTERVIEW SAMPLING INFORMATION

McGwigan School and Charleston High School

	<u>McGwigan School</u>	<u>Charleston High School</u>
Number of Resource Persons	80	22
Number of RP's to be Interviewed	40	11
Number of Interviews Obtained	38	10
Number of Usable Interviews	35	9
Response Rate in Percentage	88	82

Far West School (FWL). Agreement was reached with staff of the Far West School that 50 telephone interviews would be conducted with Resource Persons who had been active in the program. The school staff identified four different classes of resources (identified in Table 2-8), and provided information on the numbers of students who had had some involvement at each type of organization. The sample of 50 persons to be interviewed was chosen from the total of 106 organizations and persons, using a table of random numbers. The quotas for each of the four classes were proportional to the frequency of occurrence in the total group. Replacements for those initially chosen to be interviewed were listed in random order, and were to be used if initial contacts could not be completed after three attempts.

Information on numbers of resources, quotas, and interviews conducted, and number of random replacements needed to reach the quota is given in Table 2-8. It can be seen that the procedures and rules meant that the quotas in each class were reached. Between a third and a half of the Resource Person interviews were conducted with replacements when the initially designated person could not be reached by telephone after three attempts.

Community Experiences for Career Education (NWREL). The staff at (CE)₂ required that all Resource Persons involved in the program activities be contacted, and that all initial contacts with the resource sites be made by (CE)₂ staff. Thus, mailed questionnaires distributed by the school, with return to ETS, appeared to be the only feasible approach. It was agreed, however, that a (CE)₂ staff member would make follow-up telephone calls to non-respondents after a reasonable period of time, and would mail additional questionnaires if the first ones had been misplaced. The (CE)₂ program had six different classes of resources, and required that members in each class receive questionnaires that contained only questions appropriate to their function, stated in the terms used by (CE)₂ program. Thus, there were six forms of the questionnaire used, although there was extensive overlap in the content of the various forms.

Information is given in Table 2-9 on the numbers of resource sites and persons to whom questionnaires were sent, and the number and percent of usable questionnaires received. The table shows that 62% of the individuals who received questionnaires provided usable information, and they represented 72% of the organizations involved in providing community experiences. It should be noted that the numbers shown in the first column of the table are based on a second listing of sites and people provided by the UBCE school, which is the list actually used for mailing. An earlier list provided by the school had a larger number of sites and persons. ETS could not

TABLE 2-8

RESOURCE PERSONS AND ORGANIZATIONS: INTERVIEW SAMPLING INFORMATION

Far West School

	<u>Number of Resources</u>	<u>Quotas and Number of Interviews*</u>	<u>Number of Replacements</u>
Resource Persons			
Orientation only	26	11	6
Orientation and Exploration	59	29	9
Resource Organizations			
Orientation only	8	4	0
Orientation and Exploration	13	6	0
	<u>106</u>	<u>50</u>	

* With the use of randomly ordered replacements, interviewing was continued until the quotas were reached in each class.

TABLE 2-9

RESOURCE PERSONS AND SITES: QUESTIONNAIRES SAMPLING INFORMATION

Community Experiences for Career Education

	<u>Number of Resources</u>	<u>Number of Usable Questionnaires</u>	<u>Percent of Return</u>
Resource Sites	88	63	72
Individual Respondents			
Organizational Rep. Only	23	17	74
Employer Instructor*			
Exploration level only	78	50	64
Learning level only	1	0	--
Learning and Exploration	59	33	56
	161	100	62

* Some of the employer instructors may also have been organizational representatives, in which case the questionnaires contained questions for both classes of respondents.

determine why there were differences between the two lists, but assumed the smaller list resulted from the elimination of sites and persons that could have been used by students, but were not.

Academy for Career Education (RBS). It was agreed with the RBS staff that 50 interviews would be held with resource persons. At the time of sample selection, information was available to ETS only with regard to the number of exploration and specialization sites, and whether the specialization sites were to be used during the first, second, or third quarters of the year. No information was available about the numbers and functions of persons at the resource sites.

In planning for sampling for the 50 interviews, it was assumed that, in total, less student and resource person time was spent at exploration sites than at specialization sites, and that a resource person's task at an exploration site was less complex. Therefore, it seemed best to plan to interview one person at each exploration site, and two at each specialization site. It also seemed useful to insure that specialization sites used in each school quarter were included in the sampling, since student familiarity with the program procedures and site experiences seemed likely to be important. These considerations led to the decisions that one-third of the 50 interviews should be conducted at exploration sites, and that the number of interviews at specialization sites for each quarter should be proportional to the number of sites.

In effect, then, the resource sites were stratified on the basis of type (exploration vs. specialization) and quarter for planned use. The sites in each stratum were put in random number order, so that in cases where interviews could not be conducted at the first sites chosen randomly, the replacement would be random. Problems affecting the scheduling of interviews at the Academy have been referred to in the preceding sections. These problems also affected the interviewing of resource personnel, with the result that alternates were used quite frequently instead of devoting time to repeated efforts to contact the initially chosen personnel.

Information on number of sites, quota, and interviews obtained is presented in Table 2-10. This table shows that usable interview data were obtained for a high proportion of the established quotas at both the exploration and specialization sites.

TABLE 2-10

RESOURCE PERSONS AND SITES: INTERVIEW SAMPLING INFORMATION

Academy for Career Education

	<u>Number of Sites</u>	<u>Quotas</u>		<u>Number of Usable Interviews</u>	<u>Percent Return</u>
		<u>No. of Sites</u>	<u>No. of Interviews Per Site</u>		
Exploration Sites	46	17	18	18	100
Specialization Sites					
1st Quarter	5	2	4	3	75
2nd Quarter	25	8	16	14	88
3rd Quarter	19	6	12	13	108
Total All Sites	95	33	50	48	96

CHAPTER 3

MCGWIGAN AND CHARLESTON HIGH SCHOOLS

The Experience-Based Career Education (EBCE) school that was used for the developmental and operational work in career education carried out by the Appalachia Educational Laboratory (AEL) was located at McGwigan School, a building that had been used as a school in the past. This EBCE school is identified as McGwigan in this evaluation report to distinguish it from a second high school that had adopted the EBCE model under the auspices of the Kanawha County Secondary Schools (KCSS). This second EBCE school represented a first effort at dissemination of the EBCE program for operation independent of the development agency. It was, in effect, an independent field test of the model, and the original external evaluation contract was modified to include collection of data relevant to the evaluation of the EBCE program in the KCSS school as well.

The replication site was housed in the Charleston High School. In this report it is designated as KCSS (Kanawha County Secondary Schools) to reflect the fact that the administrative and policy responsibility was entirely independent of AEL. The information in the next section on the procedures used in the AEL project is probably more accurate for the McGwigan School than for Charleston High School. However, on the basis of information provided by the anthropologists and ETS interviewers, the ETS evaluation staff believe that the model was followed with reasonable fidelity at Charleston High.

This description is based on a number of sources of information. Foremost among these are the ethnographic report (Volume II), material produced by AEL, and what was learned by ETS staff during visits to the project. The description is necessarily a summary, intended only to give a knowledge of the school organization, processes, and materials sufficient to understand some of the terminology used in this report. It is a very brief description of what was being evaluated in the study, and because of the individualized or personalized nature of the school program, must be considered only as an overview. The description does include some comments based on information gained in phases of the evaluation study, where such comments seem likely to aid in understanding what went on at the school. This evaluative kind of information is presented in more detail in the ethnographic report (itself a kind of thorough description of the school) or in later sections of this chapter. Of

course, a more complete and informative description of the school procedures and materials as presently structured can be obtained from material available from the Appalachia Educational Laboratory.

What Were The Procedures Used At McGwigan?

The experience or employer sites were the major focus of the McGwigan school program and thus the major determinant of what the program was. Most students spent about four days a week at these sites. One day a week they were involved in activities at the Learning Center located in the McGwigan School. Students could and sometimes did spend more than one day there, but there were almost no occasions when all the students were present at the Learning Center at the same time. The six Learning Coordinators (LC's) were the key school staff members in dealing with the students, and, on the average, each LC worked directly with approximately thirteen students. Informally, other school staff members, including secretaries and drivers of the school vans, also had key roles in working with some students. There were three major kinds of activities which took place at the Learning Center: meetings between students and LC's on an individual basis to plan student work and review progress; individual or group counseling sessions; and academic seminars or "classes" to allow for meeting academic requirements or improving particular skills.

Experience Sites

The experience site placements were designed to be open-ended, so that students could spend the time necessary to accomplish their plans, but would not be bound to stay at a site if it did not seem profitable to do so. Most often students were at a site from one to thirteen weeks. The choice and sequence of site placements were, in the final analysis, made by the student, with a variety of sources of information available to assist in the process. Learning Guides provided information about the site characteristics and what might be learned. An Experience Site Access System permitted students to use test score information of various kinds with a McBee Keysort Deck to obtain general information about the kinds of sites that might be most helpful. When the keysort cards had been used, students could then turn to the Community Experience Site Control System to obtain information about specific sites.

Students made use of these various procedures to some extent in their early days at McGwigan School, but they were used less and less frequently as the year progressed. The site selection depended more and more on peer assessments of the sites and people at the sites, and on the advice or direction of the LC's. The LC's had important roles to fill in assisting the students in this site selection, and a person designated as the Placement Coordinator was involved when the students came to actually schedule the selected site experience. The Learning Guides were generally used after the site had been selected, as a source of information on how to dress, what to expect, etc.

There was often a two or three week delay between the time a student selected a particular site and the time he or she began the experience. This was probably most often the result of the complications of scheduling and the availability of personnel to work with students at the sites. An additional factor was the number of students who wished to gain experience at a particular site. In some instances, the location of the sites presented transportation problems; it was not always easy to insure that students could arrive at the sites at the time they were supposed to. The school did have two vans for use in transporting students to the sites, and it was often on these occasions that the van drivers could serve a very useful role as informal counselor or confidant for students. This was not an intended role for the drivers, but it apparently did occur frequently, and with good effect, depending on the personality interactions of the drivers and particular students.

Although the experiences at employer sites were open-ended, they were not unstructured. There were three kinds of documents that were to be completed at various times during the site experiences: a Career Exploration Guide to be worked on in the first three weeks; a Career Investigation Guide completed by students who stayed at a site for three to five weeks; and a Career Specialization Guide to be worked on by students who stayed at an experience site for more than five weeks. In fact, many students found these guides to be irrelevant to what they were doing, and the structure of the site experiences may most often have been provided by the LC's and the Activity Sheets discussed below.

The specific activities and experiences a student had at a site depended on the nature of the site, the Resource Person (RP) or Persons at the site with whom the student worked, and the student's interests and personality. Some students found a particular site to be quite

helpful; others might find the same site to be a waste of time. In some cases, students were employed after school hours at a site where they might be placed during school hours. Some students also had offers of employment at a site upon graduation. For these students, this unintended job placement function of the EBCE school may have been one of the major outcomes of the program.

Learning Center

Of the three major Learning Center activities mentioned above--student work planning and review, guidance and counseling, and academic work--the first was required. The other two were optional, but encouraged by the staff. The required meetings with the LC's on an individual basis were to take place weekly. Generally, these meetings were concerned, about equally, with academic needs and requirements and with matters related to experience site placement and progress. Activity Sheets provided the focus for these meetings, although the conferences were not limited to them. In fact, the personal relationship between student and LC was a very important matter for many students, and on occasion the LC responsibility for a particular student was changed in an effort to establish a better relationship.

The Activity Sheets were single page documents used to negotiate the specific assignments students were to complete. They could be used for assignments relevant to the experience sites, or for assignments to be completed at the Learning Center. Generally, two or three Activity Sheets were completed in a single conference. They provided both the structure for the student's program and the basis for later evaluation of the student's accomplishment of the assignments. Although completion of the Activity Sheets was designed to be a joint activity of both the student and the LC, many students simply let the LC complete the sheets and accepted their assignments as given, without negotiation. Some students did consistently participate in the preparation of these sheets; other students played an active role on some occasions, and let the LC complete the sheets on others.

A completed Activity Sheet cannot be easily described, because it varied as a function of student needs, interests, and current status. On occasion, textbooks provided the basis for carrying out the assignments. This was perhaps most often the case if the student was planning some post-high school education or if the student was deficient in one or more academic or skill areas. Frequently the Activity Sheets indicated that some kind of

product would result from an assignment, but there was a wide range of acceptable products. These products could be oral reports on activities at experience sites or elsewhere, visual presentations prepared in conjunction with an activity, written essays, or workbook exercises. The Activity Sheets were designed to be closely related to a formalized inquiry process that would assist the student in learning about careers and in learning more about the inquiry process per se. It appeared, however, that while this process was formally carried through by the LC in indicating the various steps of inquiry at the appropriate places on the Activity Sheets, students gave very little attention to the principle behind the whole process.

Guidance Seminars. Student guidance and counseling was intended to be primarily a small group activity that would assist students in identifying and clarifying their career and life interests through discussion, group testing, and the completion of various forms designed to facilitate this purpose. The students did not seem to find these sessions of much value, and often resisted them, either by not attending or by actively frustrating accomplishment of the intended purpose. The students preferred to seek such counseling and guidance as they thought necessary either through individual meetings with the Guidance Counselor, or through informal discussion within small, self-selected peer groups.

Academic Seminars. These seminars, which were also optional, were organized primarily by the LC's and centered on the areas in which the LC's had particular competence and experience. They were not initiated until late in the first semester, in response to the apparent need to provide assistance for students who were deficient in various academic areas. Student attendance at the seminars appeared to be low, perhaps because there were relatively few students who believed that they needed the particular kinds of assistance that could be obtained in the seminars. In any event, attention to the academic needs of the students appeared to result primarily from the individual discussions with LC's.

In addition to its formally defined purposes, the Learning Center served other purposes as well. Students used the Center as a meeting place. As mentioned above, students often had to wait for some time to be scheduled at an experience site, and some or much of this waiting time was spent at the Learning Center in peer discussion or undirected "putting in time." The Learning Center was also a place where informal student-staff interaction occurred, and where undocumented but probably useful counseling and interest/values clarification was facilitated.

Finally, there were staff meetings concerned with reviewing student progress, diagnosing student problems, prescribing possible student "treatments", and dealing with administrative and organizational problems that interfered with effective school functioning. The nature of these meetings cannot be described here, but they were undoubtedly an important part of the procedures of the school.

What Kinds of Students Enrolled in These Schools?

The answer to this question is based almost entirely on information provided in the 1975 Internal Evaluation Report prepared by the AEL staff (Shively, 1975). The schedule for the external evaluation study did not permit the independent collection of student and family background data, at least some of which had been obtained by the project staff at the time of student recruitment and selection in the spring of 1974. While ETS might have collected additional information, doing so after the initiation of the external evaluation would undoubtedly have resulted in some duplication of effort on the part of the students involved; it would also have been unusually difficult to obtain this information from control group students who had not been admitted to the school. The source report mentioned above, from which the data presented here were taken, includes more detail. That report should be consulted if additional information is desired.

There were 73 students enrolled at McGwigan School, and 20 students participated in the EBCE program offered at Charleston High School (KCSS). At least 70% of the McGwigan students started in the EBCE school in the fall of 1974, and all of the KCSS students were in their first year in the program. Descriptive student characteristics data are presented in Table 3-1. Educational and occupation information for the parents of the students is presented in Table 3-2.

It is evident that these students were predominantly white twelfth graders, with somewhat more females than males. The program for the 1974-75 year was clearly a one year experience for most of the students. Probably 25-30% of the McGwigan students expected to go on to college at the time they entered this school; as many as 50% of the KCSS students may have expected to go on to higher education. Using father's occupation as an indicator, both schools appear to include students from a

TABLE 3-1

DESCRIPTIVE DATA FOR ENROLLED EBCE STUDENTS IN 1974-75
(All figures are percents)

	<u>McGwigan</u> <u>n=73</u>	<u>KCSS</u> <u>n=20</u>
Sex		
Male	47	40
Female	53	60
Ethnic Group		
White	88	70
Black	11	30
Spanish Descent	1	0
Grade		
11	22	25
12	78	75
Previous School Program		
General	49	30
Vocational Education	19	20
College Preparatory	26	45
Other	6	5

TABLE 3-2

EDUCATIONAL AND OCCUPATIONAL INFORMATION FOR
PARENTS OF ENROLLED EBCE STUDENTS IN 1974-75
(All figures are percents)

	McGwigan <u>n=73</u>	KCSS <u>n=20</u>
Mother's Education		
Less than High School	29	30
High School	29	50
More than High School	42	20
Father's Education		
Less than High School	33	25
High School	33	25
More than High School	34	50
Father's Occupation		
Professional	14	20
Manager or Administrator	25	15
Proprietor	5	10
Sub-total	<u>44</u>	<u>45</u>
Technical	3	15
Craftsman	15	15
Sub-total	<u>18</u>	<u>30</u>
Sales	3	0
Clerical	3	0
Protective Services	3	0
Operative	10	15
Laborer	11	5
Sub-total	<u>30</u>	<u>20</u>
Other	5	0
No Response	4	5

wide range of socioeconomic backgrounds. McGwigan School is probably a little more diverse in this respect, as might be expected. This school drew students from a number of different high schools in Kanawha County, while the KCSS students all came from Charleston High School. A somewhat larger percentage (30%) of the parents of McGwigan School students were employed in semi-skilled or unskilled occupations, and overall they had less education than the parents of the KCSS students. These factors were probably important contributors to the larger percentage of KCSS students who were oriented toward college attendance.

The main reasons for entering the EBCE schools given by the students are shown in Table 3-3, with the percentages of students who gave each of these reasons.

It seems evident that about 60% of the students in these schools had stated reasons that were consistent with either general objectives of the schools (career learning) or with the school procedures (personalization). The majority of other students entered because of dissatisfaction with the traditional programs offered in their high schools of origin.

What School Procedures Did the Students Find Useful in Learning About Careers?

A review of the in-depth interview schedule, as described in Chapter 2 and presented in Appendix B, will indicate that a great deal of quite detailed information about learning processes was obtained. This abundance of detail is, of course, both a strength and a weakness in the use of interviews. This is particularly true when, as in this instance, there is great reliance placed on the use of free response questions directed to the personalized educational experiences of each respondent. After the responses were obtained, it was essential to develop coding systems for the responses that would allow for the organization and reduction of the information to a manageable form that would also retain with accuracy as much of the sense of the original responses as possible. The very limited time available for the pretesting of the interview schedule meant that the task of defining the limited choice categories and rating scales could not be done prior to data collection. It had to be carried out after the fact, a less desirable alternative.

TABLE 3-3

STUDENTS' PRINCIPAL REASONS FOR ENROLLING IN EBCE SCHOOLS 1974-75
(All figures are percents)

	McGwigan <u>n=73</u>	KCSS <u>n=20</u>
Dissatisfied with last year's school program	30	30
Wanted more information on careers	47	50
Wanted a more personalized program	15	10
Heard it's an easy program	0	0
Other reasons	8	5
No reasons given	0	5

In providing information to answer the series of questions that follow, tabular presentations of data are used to identify what appear to be the most important conclusions to be derived from the data. All of the data from which these abbreviated tables were taken are presented in Appendix C for the use of those readers who may wish to review the detail. Each table in the body of the report is referenced to the more detailed table in Appendix C by number.

Reviewing very briefly the information on student selection and sampling presented in Chapter 2, interview data were available for two groups of students (experimental and control) who applied for admission to McGwigan School in the spring of 1974, and for a group of students who enrolled in the Charleston High School EBCE program. The two former groups are identified here as McGwigan and Control group students. The Charleston High School group is identified as the KCSS group; there was no control or comparison group for these latter students. The sample of McGwigan students who were interviewed was randomly selected from the experimental and control groups, which had themselves been identified through random selection at the time of admission.

How Useful Were the Resource Site Experiences Arranged by the EBCE Schools?

This question can be answered only for students enrolled in EBCE schools; i.e., it is not a meaningful question for control group students. As explained above, however, these program generated experiences represent the heart of the EBCE concept, and are the feature that most distinguishes these schools from the conventional high schools.

In general terms, the answer to the question is:

- About 90% of the students found some experience site activities to be useful in learning about their first choice career, and about 70% found some activity useful for the second choice career.
- About 70% of the students found extended exploration or investigation on at least one experience site to be useful for learning about first choice careers, and about 60% of them found these extended experiences useful for their second career areas of interest.

More precise answers may be obtained using the data in Table 3-4, or by reference to Table C-1 in Appendix C.

How Useful Were the Learning Center Activities?

In general terms, the answer to the question is:

- About a third of the EBCE students cited one or more Learning Center activities that were useful for the first choice career, and about a quarter of them felt that such activity was useful for their second choice career.

It should be remembered that this question was oriented to learning about specific careers of interest which the students cited during the interview. Students may well have participated in learning center activities that they believed useful for other purposes.

A more precise answer to this question may be developed from the data in Table 3-5.

Are Non-School Activities Useful in Learning About Careers?

In general terms, the answer is:

- About half of the EBCE school students mentioned something outside their school program that had been helpful in relation to their career choices, the most frequently mentioned activity being some leisure time activity, or making something at home.

More precise answers to this question can be found in Table 3-6. It should be particularly noted that the experience site activities of the EBCE students are part of their school, and are not included here. These are additional activities, distinct from school-related activities.

How Useful is Reading in Learning About Careers?

- The great majority of the EBCE students mentioned some kind of reading that was useful to them for one of their career interests; but less than half of the control group students cited reading, and these citations were made much more often in connection with the first choice career.

TABLE 3-4

LEVELS AND NUMBERS OF EBCE SITE EXPERIENCES STATED
AS USEFUL FOR CURRENT CAREER CHOICES
(All figures are percents)

	McGwigan		KCSS	
	<u>First</u> <u>Career</u> <u>Choice</u>	<u>Second</u> <u>Career</u> <u>Choice</u>	<u>First</u> <u>Career</u> <u>Choice</u>	<u>Second</u> <u>Career</u> <u>Choice</u>
Exploration or Investigation level at				
Three or more sites	19	11	15	9
Two sites	29	23	46	27
One site	38	37	30	18
Orientation Level Only	3	--	--	9
Not Codable	--	4	--	--
No Useful Site Experience Stated	10	26	8	36
Number of respondents	31	27*	13	11*

*Four McGwigan and one KCSS students had no second choice;
one KCSS student gave no response.

Note: These data are derived from Table C-1.

TABLE 3-5

LEARNING CENTER ACTIVITIES CITED AS USEFUL FOR
CURRENT CAREER CHOICES
(All figures are in percents)

	McGwigan		KCSS	
	First Career Choice	Second Career Choice	First Career Choice	Second Career Choice
One or more activities involving staff member by name	--	--	8	--
One activity cited, no staff member mentioned	19	15	23	8
Talk with teacher or Learning Center staff member	13	7	8	8
Outside speaker or class prior to EBCE application	3	--	--	8
Other or uncodable	--	--	--	--
No Center activity cited	65	78	62	75
Number of respondents	31	27	13	12

Note: These data are derived from Table C-2.

The differences between the experimental and control group students, with respect to the numbers of students citing some reading, are statistically significant for both the first and second career choices. Information that would be useful in refining the answer to the question posed is given in Table 3-7.

Do the Experiences and Activities Result in Useful Products or Specific Accomplishments?

The answer to this question is quite different for the EBCE and conventional school students. Generally, student responses can be described as follows:

- About two-thirds of the EBCE students mentioned a particular product or accomplishment that was relevant to their career choices.
- Less than 30% of the students in conventional school programs cited some particular product or accomplishment.

The difference between the experimental and control groups was statistically significant for both first and second choice careers. The McGwigan students most frequently mentioned the production of term papers or other written reports as useful accomplishments. The KCSS students also mentioned written products and new skills or development of career plans as useful outcomes with about equal frequency. Data in Tables 3-8 provide the basis for a more detailed answer to this question.

Are the Student Experiences Oriented Toward Career Choice?

This is a very complex question to try to answer briefly, because of the number of possible combinations involved when both career orientation and experience are involved. Recognizing this difficulty, a very general answer might be:

- About 90% of the students in the EBCE schools appear to have a career interest focus, and to have had experiences relevant to either one or two of these career interests.
- Only 20% of the conventional school students can be classified in this way.

The differences between the experimental and control group students are statistically significant, with respect both to having a career focus, (as opposed to a general area of interest)

TABLE 3-6

NON-SCHOOL ACTIVITIES CITED AS USEFUL
FOR CURRENT CAREER CHOICES
(All figures are in percents)

	<u>McGwigan</u>		<u>KCSS</u>	
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
One location with adult involvement for extended period of time	13	19	25	20
Leisure time activity or making something at home	16	19	25	10
Talking with family or other adult	6	4	17	20
Job	3	4	--	--
Other or uncodable	6	8	--	--
No activities cited	55	46	33	50
Number of respondents	31	26	12	10

Note: These data are derived from Table C-3

TABLE 3-7

READING ACTIVITIES CITED AS USEFUL FOR CURRENT CAREER CHOICES
(All figures are in percents)

	McGwigan		KCSS	
	First Choice	Second Choice	First Choice	Second Choice
One or two books with titles cited, with or without other reading	16	19	23	--
Magazines, pamphlets, etc. only	25	26	23	33
Reading, no details	26	11	15	8
Other or uncodable	6	7	--	--
No reading cited	26	37	38	58
Number of respondents	31	27	13	12

Note: These data are derived from Table C-4

TABLE 3-8

TYPES OF STUDENT ACTIVITIES AND PRODUCTS RELATED
TO SELECTION OF CURRENT CAREER CHOICES
(All figures are in percents)

	McGwigan		KCSS	
	First Choice	Second Choice	First Choice	Second Choice
Individual or group projects	12	8	18	--
Term papers or other written reports	35	32	18	18
Specific learning or skill improvement activity	13	4	18	27
New or revised plans	3	12	--	18
Other or uncodable	--	4	9	--
No projects or accomplishments cited	35	40	36	36
Number of respondents	31	25	11	11

Note: These data are derived from Table C-5

and to having had experiences related to their careers or interests. The data in Tables 3-9 and C-6 should be considered in assessing the adequacy of this answer, or deriving a more precise answer.

What Did the Students Think About the EBCE Schools?

The students in both of the EBCE schools were asked if they would apply for admission to the EBCE program if they were faced with the choice again. The control group students were also asked this question, since they too had applied for admission in the spring of 1974. The answer to the question is clear:

- All but one of the McGwigan students and all but two of the KCSS students said they would reapply; and 71% of the control group students said they would reapply.

The complete breakdown of responses is shown in Table 3-10.

When asked to give reasons for their decisions, the most common response was "to learn about careers". This response was given by about half of the McGwigan and control group students, and by about three-quarters of the KCSS students. The next most common reasons related to having greater independence, increased freedom, and lack of a rigid school structure.

When the reasons were classified as being positive or negative in the feelings expressed about the project, they were very clearly positive, with 102 positive and only three negative reasons being given by the 44 EBCE students. Some of the students also gave reasons that were really related to the conventional school programs. Overall, however, the reasons indicated a liking for the EBCE schools rather than a dislike of the conventional school programs which would have been the alternative to the EBCE school. Only 25 reasons were classified as negative about the conventional school as compared with the 102 pro EBCE reasons.

This summary of the positive and negative reasons is based on data presented in Table C-7.

TABLE 3-9

PERCENTAGES OF STUDENTS CLASSIFIED BY CAREER
FOCUS AND RELATED EXPERIENCES

	<u>McGwigan</u>		<u>KCSS</u>
	<u>Experi- mental</u>	<u>Control</u>	
Two careers of interest, experience related to both experience related to one	52 23	5 5	62 15
One career interest, related experience	13	10	15
Interest without career focus, related experience	--	10	--
Potential career interest, no experience	3	38	--
No career or interest focus, but useful experiences	6	5	--
No focus, no useful experiences, or confused about careers	3	29	8
Number of respondents	31	21	13

Note: These data are derived from Table C-6.

Are the Students Different Because They Were in EBCE Schools?

The information on student effects, other than basic skills, was collected in the context of the interview oriented toward career choice, as discussed in Chapter 2. Prior to discussion of the ways in which the students differ as a result of attendance at McGwigan School, it seems appropriate to summarize briefly the information obtained about students' career interests.

Considering both first and second career choices, the 31 McGwigan students were interested in a total of 37 different careers or jobs; the 21 control group students were interested in 29 careers; and the 13 KCSS students were interested in 17. When the first choice careers of the McGwigan students were grouped by career areas, the most popular ones were Medical and Biological Sciences (15%), Technical Jobs and Secretarial-Clerical Jobs (13% each). Business Administration was not chosen by any McGwigan students.

None of the male students were interested in the Teaching and Social Sciences area or in the Secretarial-Clerical Work area. The latter was the most frequently selected career area for the female students, chosen by almost a quarter of them.

The data from which these summary comments were derived are given in Tables C-8 and C-9.

Have the Students Considered More Than One Career?

- About 10% of the EBCE students named only one career or job presently of interest to them. The percentage of control group students who named only one career or job is about the same.

More detail is given in Table 3-11, which also provides information on the percentages of students who expressed a preference between two careers of interest.

TABLE 3-10

PERCENTAGE OF STUDENTS WHO WOULD AND WOULD NOT
REAPPLY FOR ADMISSION TO THE EBCE SCHOOL

	<u>McGwigan</u>		<u>KCSS</u>
	<u>Experi- mental</u>	<u>Control</u>	
Would reapply	97	71	85
Would not reapply	3	19	--
Not sure	--	10	15
Number of respondents	31	21	13

TABLE 3-11

PERCENTAGE OF STUDENTS STATING PREFERENCES
BETWEEN CAREERS

	<u>McGwigan</u>		<u>KCSS</u>
	<u>Experi- mental</u>	<u>Control</u>	
Two Careers of Interest			
Prefer one over another	61	86	69
Equal in interest	23	10	23
Don't know	3	--	--
One Career of Interest	13	5	8
Number of respondents	31	21	13

What Factors Do Students Consider When
They Choose Between Careers?

The students in both the EBCE and conventional school programs named a variety of different factors they would consider in choosing between two careers of interest. On the average, the students gave three or four reasons, with no marked difference between groups in the numbers of factors considered. The student responses were coded using twenty different categories. The analyses of these coded responses are presented in considerable detail in Table C-11. Recognizing the difficulty in providing a relatively simple answer to such a complicated question, a general answer is:

- Students in the EBCE schools tended to mention factors of personal interest and enjoyment and of requirements for success in the career more often than did the control group students.
- The control group students mentioned factors of job availability and rewards somewhat more often.
- Specific factors which were mentioned significantly more often by one group than another were: having abilities required for job, money required to prepare for career, and employment opportunities. The first two were mentioned more often by EBCE students; the third was mentioned more often by control group students.

What Do Students Say About Their General Career Interests and Knowledge?

- The EBCE students said they had at least some interest and knowledge in a larger number of career areas than did the control group students.
- The EBCE students also had a greater number of areas for which they said that both their interest in and knowledge about the area was high.

Detailed data from the self-ratings of career area knowledge and interest are presented in Tables C-12, C-13, and C-14. These tables show that there is a great deal of overlap among the three groups of students, but the differences between the experimental and control groups are statistically significant, or approach statistical significance.

Of course, self-report of knowledge about a career area does not mean that in fact the student is knowledgeable about it. Information about actual knowledge of requirements for careers of interest was obtained from a separate question. These self-ratings may, however, be indicative of the self-confidence a student has in the area of career knowledge, which is related to one of the EBCE goals. Additionally, if students say they have no interest in a number of areas, it may be indicative of a premature restriction of the number of options open for career choice. The information summarized above suggests that the EBCE students do have more confidence as they approach career decision making, and would not eliminate as many possible careers simply because they think they have no interest in them.

Do Students Learn About the Requirements for Careers?

There is quite a range in the knowledge of career requirements for these students. For this reason, and because of the difficulty of assessing such knowledge when students choose such a variety of careers, the question can be answered in only the most general terms. Any answer must be considered to be quite tentative. With these cautions in mind it is possible to say that:

- About half of the EBCE students know 70% or more of the characteristics that are necessary for entry in the careers of interest to them.
- However, these students are not as well informed about the characteristics that are not necessary.

The control group students, on the average, did not obtain career requirements scores as high as the EBCE students, but the differences between the groups are small, and are not statistically significant.

Data relevant to these statements are presented graphically in Figure 3-1, and are presented in much more detail in Table C-10.

Do Students Choose Careers That Are Consistent With Their Knowledge of Themselves?

As indicated in Chapter 2, this question can be answered in only the most tentative fashion with the data available. It is a difficult and perhaps even impossible question to answer at best. Under the conditions operating for this study, the question was approached by simply counting the personal characteristics on which the student rated himself or herself in a way that is consistent with the self-perception of the requirements for the first career of interest. The distributions of these consistency indicators are shown in Tables C-15 and C-16.

- The EBCE students are not significantly more consistent than the control group students, although the average scores for the control group students are slightly lower than for the EBCE students.

McGuigan and Kanawha County Schools

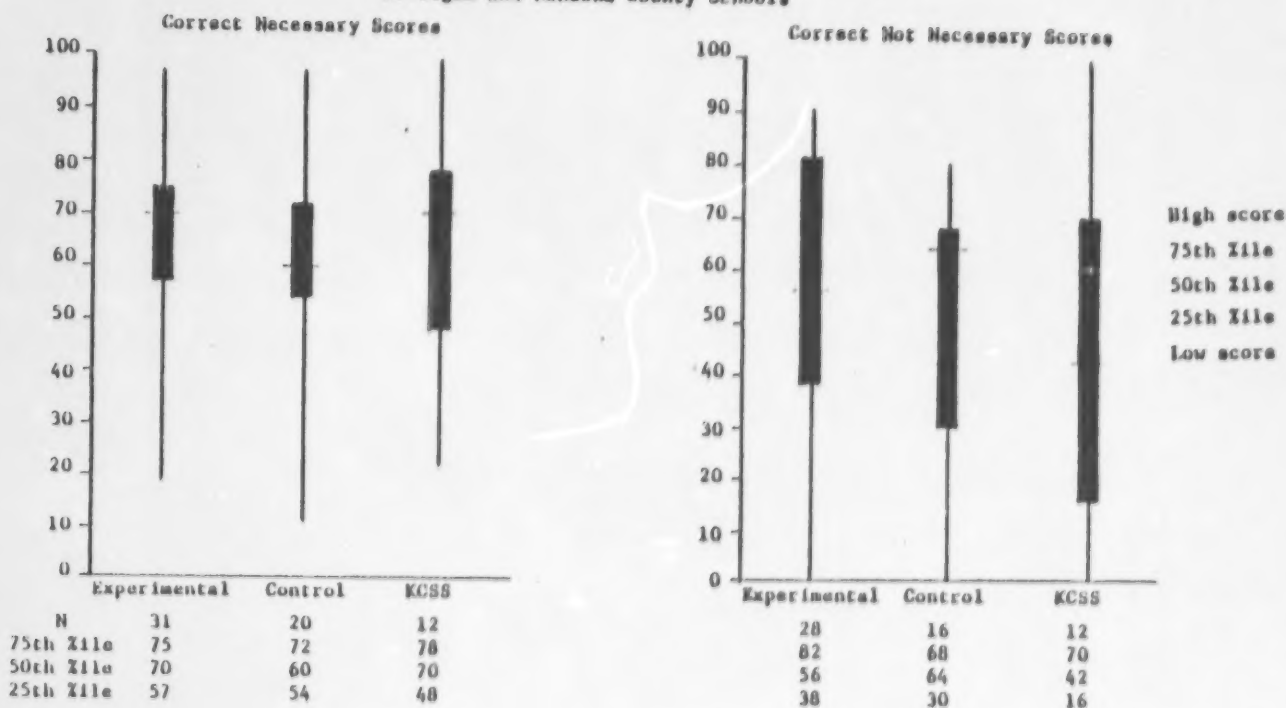


Figure 3-1. Distribution of Career Requirements Scores.

What Personal Characteristics Do Students Think
Have Been Changed During the School Year?

Students might perceive changes in themselves in an almost unlimited number of characteristics as a result of various kinds of experiences. As noted in Chapter 2, students were asked to mark 41 personal characteristics where they felt they had changed in either a positive or negative direction, leaving blank those on which they thought they had not changed. Using these data, the question may be answered as follows:

- On the average, EBCE students thought they had changed in a positive direction on 40-50 percent of the characteristics and in a negative direction on about seven percent of them.
- There was very little difference between the experimental and control group students with respect to the number of characteristics affected.

The characteristics on which 70% or more of the McGwigan School students thought they had changed positively were: ability to take direction; self-discipline; reasoning ability; basic writing; friendliness; and ability to interpret and incorporate ideas. Presumably, these are the areas of personal development where the students as a group see the EBCE school as having been most effective. It should be noted, however, that there were no significant differences between the percentages of McGwigan and control group students who marked these as areas of positive change.

The areas in which fewer than 30% of the McGwigan students felt they had changed positively (and up to 19% thought they had changed in a negative direction) were: musical ability, mechanical ability, artistic ability, and dramatic ability. It is probably not surprising that relatively few students felt they had improved themselves in these areas, since they are somewhat specialized interests. Again, none of the differences between percentages for the experimental and control students were statistically significant.

Somewhat more detail relevant to these areas of perceived change is given in Table C-17. Incidentally, reflection on the procedures used to identify characteristics with high and low frequency positive changes will indicate that this procedure would maximize the probability of finding statistically significant differences between the experimental and control groups. The fact

that virtually no such differences were found suggests strongly that there are no differences in the ways the different groups see themselves as having changed.

How Do the EBCE Students Feel About Career Planning?

The Career Planning Attitude ratings, defined in Appendix B, might best be described as combining some sense of control by the students in the choice of a career or job with a willingness on the part of the student to be open to new possibilities for career and job selection and future changes. These ratings were made by the interviewer on the basis of what the student said over the course of the entire interview.

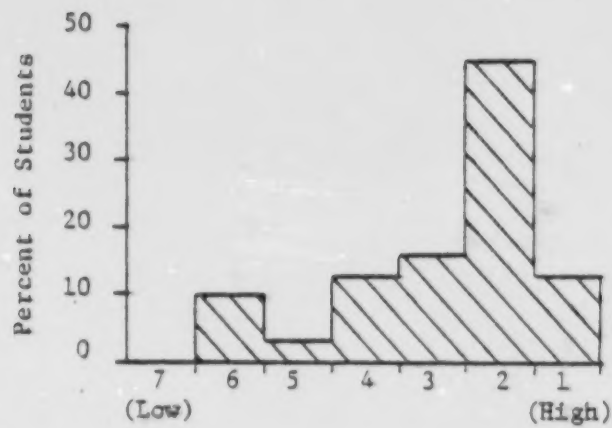
The distribution of the ratings are presented graphically in Figure 3-2, and in more detail in Table C-18. On the basis of this information, the answer to the question is:

- Three-quarters of the EBCE students are positive in their attitudes toward career planning, with feelings that they can have some control over their choices of careers and can consider a variety of careers.
- Less than half of the control group students feel this way.
- There are EBCE students who are negative toward career planning, but the difference between the experimental and control groups is statistically significant.
- The EBCE school experience has probably positively affected the value that students place on career planning.

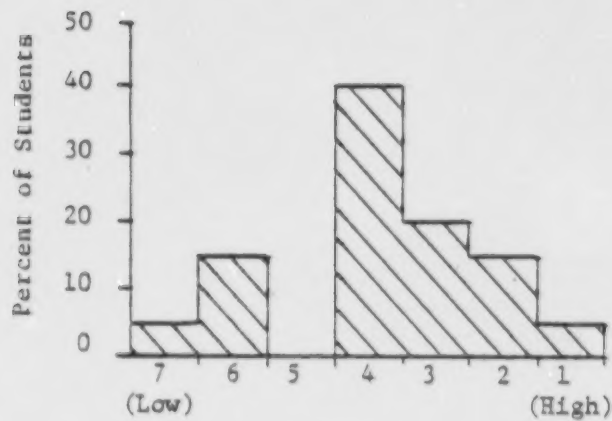
Does the EBCE School Experience Have an Effect on the Students' Basic Skills?

This question can be answered in terms of three kinds of skills: Oral Communication, Reading, and Arithmetic.

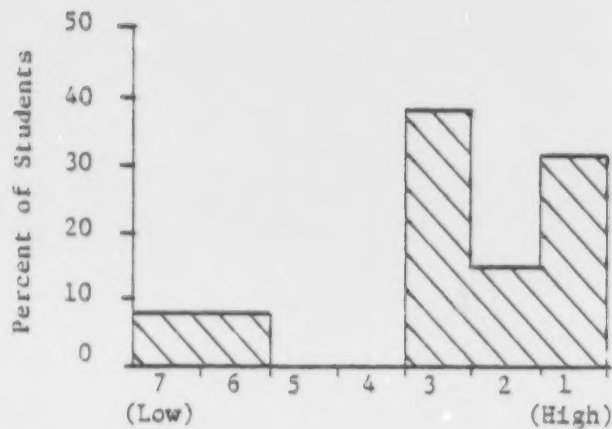
Oral Communication Skills. The interviewer rated the students on this skill using a scale defined in Appendix B. Analyses of these ratings by groups is presented graphically in Figure 3-3, and in somewhat more



McGwigan School - Experimental (N = 31)

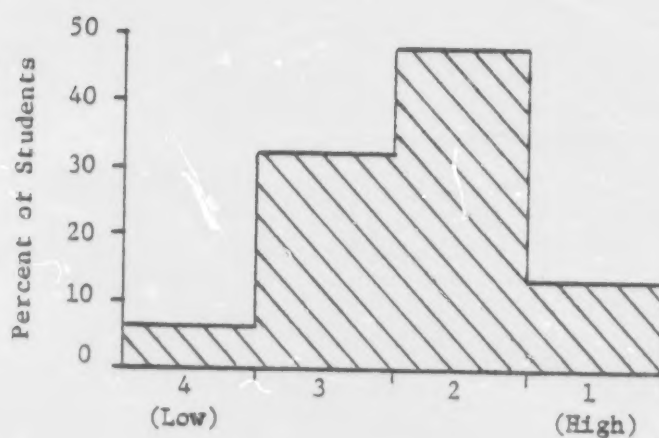


McGwigan School - Control (N = 20)

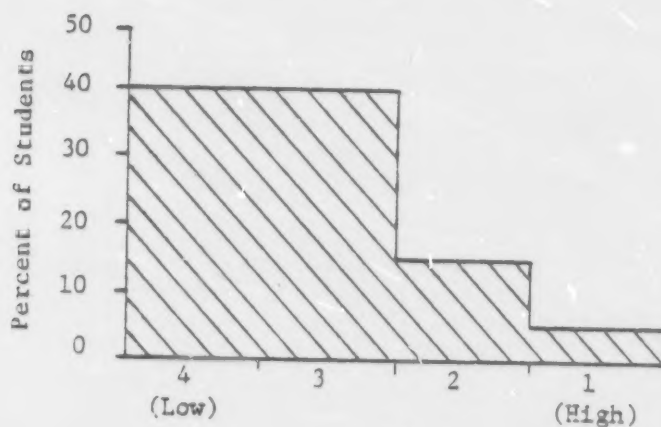


Kanawha County Secondary School EBCE (N = 13)

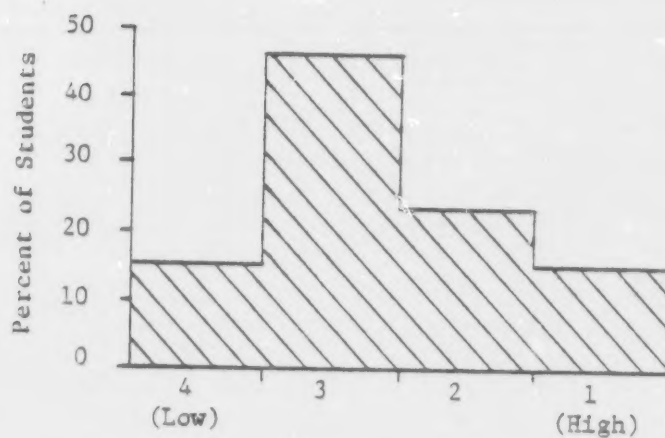
Figure 3-2. Career Planning Attitude Ratings.



McGwigan School - Experimental (N = 31)



McGwigan School - Control (N = 20)



Kanawha County Secondary School EBCE (N = 13)

Figure 3-3. Oral Communications Ratings.

detail in Table C-19. This information indicated that the answer to the question is:

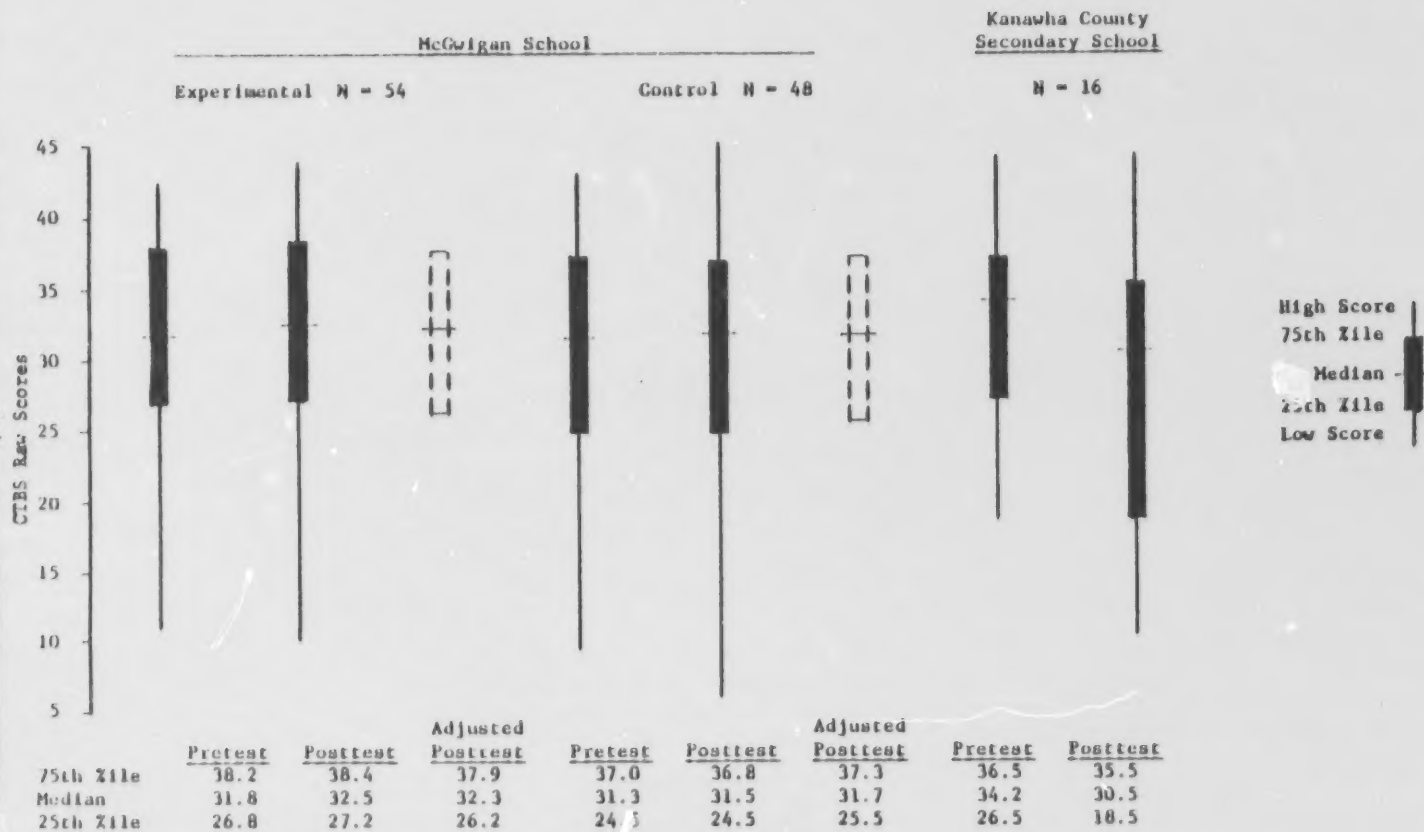
- About half of the EBCE students were able to respond orally to complex questions with answers that were generally to the point and fairly brief; but only 20% of the control group students were judged to be able to give answers of similar quality. The difference between the control group students and the experimental group at McGwigan School is significantly different.
- There may be a difference in the effectiveness of the McGwigan and KCSS programs in this respect, although the data available do not permit any precise comparison of the two schools.

One caution should be noted in consideration of these results. Assessment of oral communication skills is probably affected by the understanding and knowledge of the content to be communicated. Since career choice and planning was the focus around which the interview was constructed, it may be that the higher ratings given to EBCE students are biased in their favor simply by the content of the material being discussed.

Reading Skills. This skill was measured by one score on the CTBS. The information available is presented in Figure 3-4 and Table C-20. These data indicate that:

- The McGwigan students increased their reading ability slightly, while the KCSS students showed some slight decrease which was not statistically significant.
- The difference between the experimental and control group students is not statistically significant, and there is no evidence that participation in the EBCE school has resulted in either a particular gain or loss.

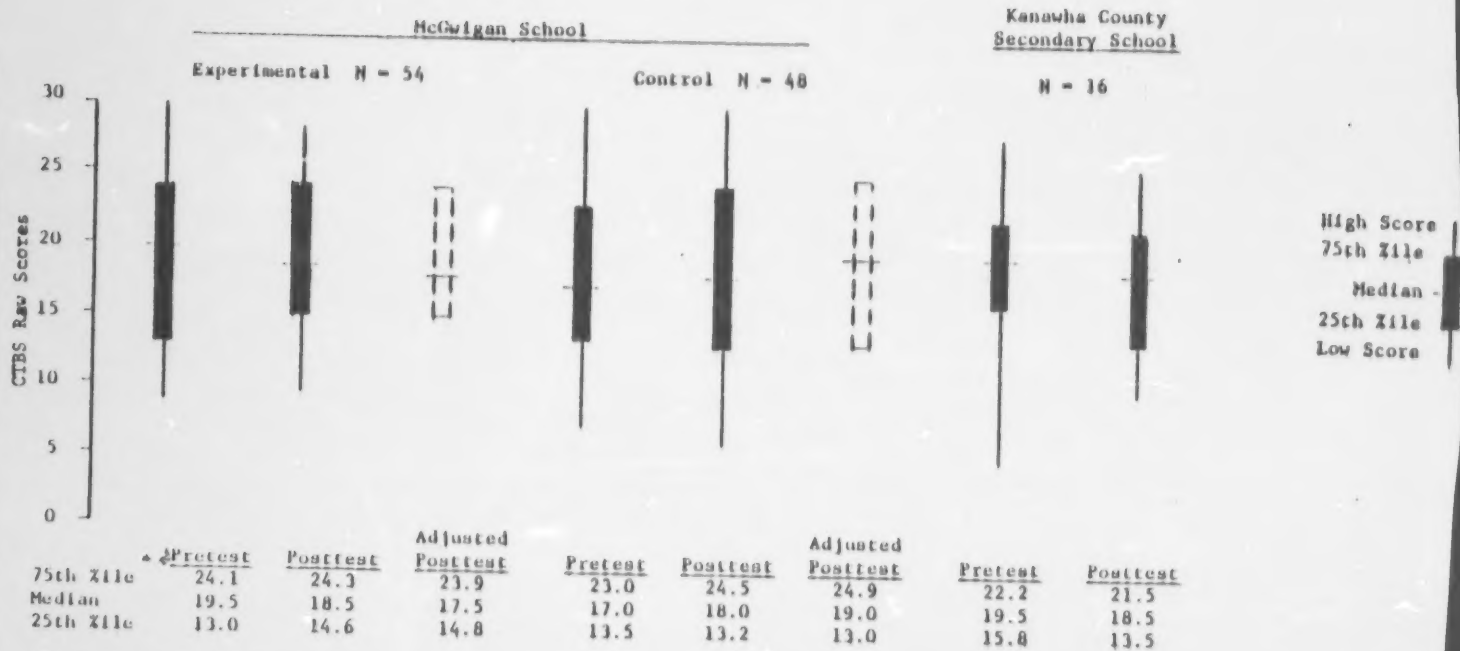
Arithmetic Skills. These skills were measured by two tests in the CTBS battery. The results are presented graphically in Figures 3-5 and 3-6, in more detail in Tables C-21 and C-22. These data indicate that:



Note: The percentiles and representation for the Adjusted Posttest distribution are only approximations. They are given only to provide an indication of the effect of corrections for difference in pretest performance.

Figure 3-4. CTBS Reading Comprehension Pre and Post Test Scores.

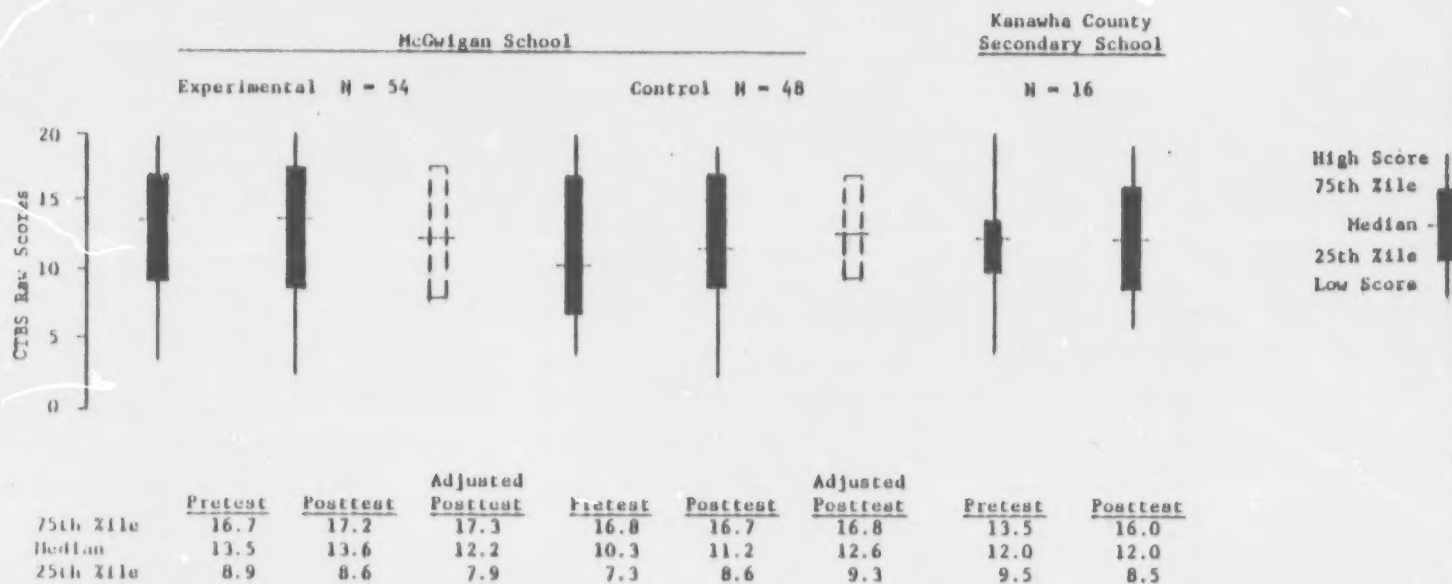
McGowan High School and Kanawha County
Secondary Schools EBCE Programs



Note: The percentiles and representation for the Adjusted Posttest distribution are only approximations. They are given only to provide an indication of the effect of corrections for difference in pretest performance.

Figure 3-5. CTBS Arithmetic Concepts Pre and Post Test Scores.

McGowan High School and Kanawha County
Secondary Schools EBCE Programs



Note: The percentiles and representation for the Adjusted Posttest distribution are only approximations. They are given only to provide an indication of the effect of corrections for difference in pretest performance.

Figure 3-6. CTBS Arithmetic Applications Pre and Post Test Scores.

- Essentially the same results were obtained for arithmetic skills as for reading skills, except that the McGwigan students showed a slight, but not statistically significant decrease in arithmetic concepts.

The answer to the question about the effects of participation in the EBCE schools on the students basic skills can be generally stated as follows:

- Overall, the EBCE schools probably improve students' skills in oral communication because of the increased opportunity to deal with a variety of adults, in large part through talking with them rather than reading or writing.
- The schools neither help nor handicap the students in reading and arithmetic.

What Plans Do These Students Have for Next Year?

The time available for the interview did not allow for the collection of a great deal of detailed information about plans for the next year. Virtually all of the 11th grade students simply planned to continue in the same schools attended during 1974-75, and could give few details beyond just continuing in school. The plans of the 12th grade students varied depending on the student and the variety of options available. The answer to the question, insofar as it can be summarized, is:

- All but one of the 11th grade students in the EBCE schools (McGwigan and KCSS) plan to attend these schools next year and can give few details of plans beyond this.
- A third of the 11th grade students in the control group also hope to be able to enroll in an EBCE school next year, with the rest planning to finish up at the regular high school.
- About half of the 12th grade students plan to have full- or part-time jobs, and about half plan to continue their education on a full- or part-time basis, with the two halves overlapping.

- There are no obvious differences in the plans of 12th grade students in the three groups, except that a somewhat higher percentage of KCSS students plan to continue their education, and all of these students plan to attend a four-year college full-time.

More detailed information is given in Tables 3-12 and 3-13.

What Did the Parents Think of the EBCE Schools?

This section outlines some of the major findings about parents' opinions of the EBCE schools in Charleston. The results of the total questionnaire administered to parents are presented in Appendix C, beginning with Table C-23.

As discussed in Chapter 2, the parents or guardians of two-thirds of the McGwigan students were interviewed to determine their opinions about this EBCE school. The 50 parents to be interviewed were chosen through stratified random sampling, using length of attendance (one year or two years) as the stratification variable. Forty-nine of the sample of McGwigan parents were actually able to be interviewed.

Since all the students at Charleston High School (KCSS) were in the first year of the new program, only the parents of the 13 students chosen for the student in-depth interview were contacted, and 11 were actually interviewed. The sample for the student interview was chosen randomly, so the sample of parents interviewed is by definition a random sample of all the KCSS parents who could have been interviewed.

In any high school, parents undoubtedly differ greatly in the amount of information they have about the school and in the ways they get the information. It is important, therefore, to describe the kinds of information on which parents base their opinions of the school, and the ways in which they have obtained this information, in order to make some judgement about the validity of the opinions reported. Of course, the validity of opinions in some sense can mean only the confidence that parents have in their opinions. If the quality of the information on which the opinions are based varies widely, the validity of the opinions as reflections of what the real school is will also vary from parent to parent. For very obvious reasons, no attempt could be made in this study

TABLE 3-12

POST HIGH SCHOOL PLANS OF 12th GRADE STUDENTS
FOR EMPLOYMENT

	<u>McGwigan</u>		<u>KCSS</u>
	<u>Experi- mental</u>	<u>Control</u>	
Now have a full-time job with			
Part-time education	0	1	0
No further educational plans	3	1	3
Now seeking a full-time job with			
No further educational plans	8	3	1
Now have or seeking part-time job			
with			
Part-time education	2	1	0
No job plans			
Part- or full-time education	8	5	7
No educational plans	0	1	2
Totals	21	12	13

TABLE 3-13

PLANS OF 12th GRADE STUDENTS FOR POST HIGH
SCHOOL EDUCATION

	<u>McGwigan</u>		<u>KCSS</u>
	<u>Experi- mental</u>	<u>Control</u>	
Full-time education			
Four-year college	3	4	7
Vocational-technical school	4	1	0
Part-time education			
Four-year college	2	0	0
Two-year college	1	0	0
Vocational-technical school	0	2	0
Totals	10	7	7

to determine the accuracy of the information the parents have, which for an individualized educational program would vary for every set of students and parents.

How Do Parents Learn About the Schools?

Parents were given a list of nine kinds of contacts they might have had with the school, and asked to indicate the frequency of use of each kind. The list below shows the percentage of the parents who said that they had been in contact with the school at least one time through the procedures listed below. More detail on the response to this question is provided in Table C-26.

<u>Kinds of Contact</u>	<u>McGwigan Percent</u>	<u>KCSS Percent</u>
Written reports about progress	97	91
Mailed information about the program in general	94	64
Phone conversation with staff member	88	72
Mailed information specifically about student	75	73
Meeting at school with staff members	78	27
Oral reports specifically about student	66	54
Meeting at school with staff and other parents	47	9
Personal observation at Learning Center	32	0
Personal observation at experience sites	30	9

The parents were also given a list of 15 general topics they might have discussed with their son or daughter, and asked to indicate the frequency with which these topics were actually discussed. Information gained or inferred through discussion between parent and offspring may be quite selective, or even distorted; but such information may also be given the greatest weight by the parents because of their direct emotional involvement. The following lists show the topics most and least frequently discussed. More detailed analyses of these responses is given in Table C-27.

The topics named by 85% or more of the parents as being discussed at least once or twice a semester were:

- Experiences at experience sites
- Experiences at Learning Center
- Careers and career planning
- Specific job skills being learned
- EBCE school staff

The topics mentioned by fewer than 50% of the parents were:

- Problems that had been solved
- Personal problems encountered
- Math activities at EBCE
- Academic problems encountered

Considering the kinds and frequency of contacts with the school, and the nature of the school related topics that parents have discussed with their children, it seems appropriate to conclude that these parents are receiving an adequate amount of appropriate information about the EBCE school to be more than generally satisfied with the alternative program. ETS staff conclude, on the basis of their general knowledge of parent information systems in traditional high schools, that the EBCE parents are at least as well informed as parents of students in such traditional schools. It is also notable that problems encountered by the students are not high on the list of topics discussed with the parents, and that more than two-thirds of the parents have had what were probably personalized contacts with the schools about their own students

Approximately three-quarters of the parents said they had received enough information about the school and about the progress of their son or daughter in personal and career development, and about 85% said they had enough information about basic skills development.

What Are the Overall Parent Evaluations of the Schools?

- Ninety percent of the McGwigan parents and 54 percent of the KCSS parents said that they would have the son or daughter enroll in the EBCE School, if the decision were to be made again.

Overall, 89 percent of the parents of McGwigan students and 72 percent of the parents of KCSS students felt that the EBCE schools were better than the high schools their sons and daughters had previously attended. In terms of student motivation to learn, 83 percent of the McGwigan and 82 percent of the KCSS parents felt that the EBCE schools were better. An even higher percentage of parents (96 percent for McGwigan and 90 percent for KCSS) felt that their sons and daughters liked the EBCE schools better than they had their past school experiences.

The parents were asked to name what they considered to be the particular strengths and weaknesses of the EBCE school. The question was open-ended, and the responses were coded into categories. Some parents named more than one strength and/or weakness. By far the most frequently mentioned strength (cited by 40 of the 60 parents interviewed) was the experiential nature of the program--the fact that students had the opportunity to experience directly the world of work. The other comments were widely varied. No other strength, and only one weakness, was mentioned by more than ten parents. That weakness was that there was not enough supervision. It should be noted that about one-quarter of the parents did not identify any particular weakness, and all but one of 60 parents named at least one strength. The complete lists of coding categories and percents are given in Tables C-44 and C-45.

What Do Parents Think The School Did For the Students?

- The most common changes in EBCE students, as perceived by their parents, may be summarized as having been increased maturity, responsibility and self-confidence, improved interpersonal skills, and greater interest in school.
- Learning about careers, career decisions, or jobs was seen by some parents to have resulted from the EBCE school experiences, but this was mentioned by only about one quarter of the parents.

The kinds of positive and negative changes the parents had observed in their children were identified in response to an open-ended question, and the responses coded from the interview records. Negative changes were noticed by only seven McGwigan parents (16%). None of the KCSS parents interviewed cited negative changes which had occurred in their sons or daughters as a result of participation in EBCE. A complete list of the coded responses, with the percentage of parents mentioning each, is given in Tables C-30 and C-31.

What Do the Former Students Think about the EBCE Program?

Virtually all of the former students recalled at least one thing they especially liked about the EBCE program. For over half of them the resource site experiences were the best liked feature. Almost 70% could not recall anything they had disliked about the program. Interpersonal skill improvement and career development were the areas in which the most learning was cited. Former students generally felt no changes were needed in EBCE except the provision of more or a wider variety of resource site experiences.

A total of 118 former students were interviewed. Almost all (93%) of them were graduates of the program. The lengths of time reportedly spent in EBCE before graduation varied. Approximately 40% of the graduates interviewed had been in EBCE two years; 26%, one year; and 30%, less than a year. The seven nongraduates interviewed reported they had dropped out of the program voluntarily. Five of these had participated in EBCE one month or less. All the students interviewed had attended McGwigan. Since the KCSS program was in its first year at the time of the study, there were no former students to be interviewed.

In this section on the McGwigan former students, only selected portions of the interviews with them are discussed. The complete data from the interviews are presented in Appendix C, beginning with Table C-47. In the data tables, the responses of graduates and nongraduates are recorded separately. Since the proportion of nongraduates is so small, however, this general discussion will deal with the former students as a whole.

What are the Overall Evaluations of McGwigan by Former Students?

Former students were asked what they liked best about the EBCE program. The responses to this open-ended question were coded into 10 categories. Those categories mentioned most frequently and by at least 10% of the former students were: job site experiences; freedom in learning, independence, flexibility; staff friendliness, openness; and, individual attention, one-to-one relationships.

The program features central to the EBCE model were the ones former students recalled liking best. Opportunities to spend time on job sites and to learn at one's

own pace in areas of individual interest stood out in the memories of the former students as the most favorable aspects of the program.

When asked to comment on what they disliked most about their EBCE experiences, the majority (61%) recalled nothing in particular they had disliked. Comments of those who had experienced dissatisfaction with EBCE were coded into categories but no one category was mentioned by as many as 10% of the former students. Clearly, the EBCE program was remembered as a positive experience.

The complete data on former students likes and dislikes about EBCE are contained in Tables C-64 and C-65.

What did the Former Students Say They Learned in EBCE?

The former students were given a set of eight learning areas and were asked how much they learned at McGwigan in each area--a lot, some, a little, or nothing at all. At least half of them felt they had learned "a lot" in four areas. Improving ability to communicate with adults was widely remembered to be a major learning outcome. The four areas of most learning as remembered by former students were:

- Ability to communicate with adults
- Specific job skills
- Career planning
- Awareness of job opportunities

There were two areas in which at least 35% of the former students remembered learning little or nothing. These were:

- Math skills
- Reading skills

According to the recollections of the former students, cognitive skill development in EBCE was secondary to career planning/awareness and the nurturing of interpersonal skills. Learning of math, in particular, was apparently not emphasized, as about one-third of the former students did not recall that they had learned any mathematics while at McGwigan. It should be noted, however, that an additional 39% of graduates said they had learned "some" or "a lot" of math during their EBCE years. Also, it should be noted (Figures 3-5 and 3-6) that there are no significant differences in mathematics achievement between currently enrolled EBCE students and the control population. More information is presented in Table C-66.

What do Former Students Think EBCE
Did for Them?

Most of the former students considered their McGwigan experiences to be a valuable precursor to their present educational and occupational activities. Around four-fifths of the group felt that EBCE had had a positive effect on preparation for further education. Even more indicated that their McGwigan experiences had had a positive impact on preparation for jobs. About one-third of the group reported that they had obtained jobs in occupational fields in which they had had experience in EBCE.

Responses to the open-ended question on what kinds of things learned in EBCE were considered most useful in their present circumstances were coded into general categories. Below are listed the five areas mentioned most frequently by former students:

- How to relate to and prepare for the "real world"
- How to communicate with adults and peers
- Career planning, experience; finding out likes, dislikes
- How to find and get a job
- Responsibility, confidence

It is evident that McGwigan experiences were considered by many of the group to be important preparation for the adult, working world. Most of the former students felt that their EBCE participation had been beneficial and could name at least one thing learned at McGwigan that had proved to be particularly useful in their current activities.

Information relevant to this question is presented in Tables C-67, C-68, and C-69.

What do Former Students Wish EBCE Could
Have Done for Them?

When asked if there was anything they would have liked to have received but didn't get from the EBCE program to prepare for further education or training, a little less than half mentioned a particular thing that EBCE had failed to provide. Indications of things not provided them were coded into categories. The most frequently mentioned area concerned job site experiences. Approximately one-fourth of the former students would

have liked more job sites, a greater variety of sites, or different sites than they had had the opportunity to use while at McGwigan.

The majority of the former students could think of no changes that might be made to improve the EBCE program. Among those who did recommend improvements, the most frequently cited suggestion was to provide more job sites and more out-of-school resources. It is evident that former students were generally satisfied with their EBCE experiences. Their major complaint--not getting enough job site exposure--could be a partial reflection of fond memories of job site experiences they had while in EBCE.

More data relevant to this question is provided in Tables C-70 and C-71.

What Are Former Students' Current Activities and Plans?

Educational Experiences Since McGwigan. About 40 percent of the former students were enrolled in some type of educational program at the time they were interviewed. Most of these were involved in full-time study at four-year colleges. Subjects and skills reported being learned were coded into 12 general areas (Project TALENT). The most frequently mentioned area of study was medical and biological science, cited by more than one-fifth of those currently involved in educational programs.

Current Educational Aspirations. Former students were asked the kinds of subjects or skills they'd like to learn about in the next five years. Responses, which were coded into the 12 Project TALENT categories, most frequently fell into the two areas of teaching/social services and medical/biological sciences.

Former students were also queried on the level of formal education they planned to complete. About half of the former students said they planned to pursue four-year college degrees or beyond. Another one-fifth of the group was interested in completing two-year college degrees or vocational certificates. Most of the EBCE former students reported that they were interested in some kind of formal schooling beyond the high school level. Only thirteen percent of the group noted they hadn't thought much about further education, and about the same proportion indicated that they were only interested in a high school diploma or equivalency. The small

number professing the lack of educational aspirations may have resulted from the EBCE processes that encourage participants to make educational and career plans.

Job Experience Since McGwigan. Nearly two-thirds of the former students were employed at the time they were interviewed, predominately in full-time jobs. An additional 15% of the respondents said they were looking for work. Those who had been employed since leaving McGwigan were asked to describe their work. Job descriptions, coded into the 12 occupational areas of Project TALENT, focused on the general labor/community and public service area. About 40% of the former students who had worked since leaving EBCE had held jobs in this category. Secretarial-clerical and office work jobs had also been held by a fairly large proportion of these students.

Career and Financial Aspirations. The descriptions former students gave of the jobs they would like to obtain in the next five years were coded into the same 12 occupational areas. Career aspirations fell into three major areas: teaching/social services, medical/biological sciences, and technical jobs.

Financial aspirations may be related to a number of things--career interests, personal lifestyle desires, parents' income, and potential sources of income in the years ahead. Former students were asked how much money they'd like to be making, realistically, five years from now. About 40 percent of the group planned future annual incomes in the range of \$10,000 to \$15,000, considered average by today's standard of living. Sizable numbers, however, anticipated earning either very low annual incomes (\$6,000 or less) or very high ones (more than \$20,000) in the next five years.

There are some general observations that can be made about the former students' current activities and plans. The majority of them have been involved in educational programs and/or jobs since they left EBCE. Most can cite particular jobs and skills they would like to be involved in over the next five years and are interested in obtaining a college degree. Educational training and career development in the teaching/social service and medical/biological science areas are of widespread interest among this group of former students.

A great deal more information about former students' present circumstances and future plans can be obtained from perusal of the tables in Appendix C. Tables C-48 through C-58 contain information about employment and career experience and aspirations. Tables C-59 through C-62 contain information regarding educational experience and future plans.

What Do the Resource Persons Feel About EBCE and Their Role Within It?

In general, Resource Persons (RP's) in the Charleston area seem to be highly conscious of and interested in the career aspects of the program. They expressed interest in the possibility of students as potential employees (and as added staff while in EBCE) in their businesses, companies, or agencies. Predictably, they regard the experiential nature of the program as its greatest strength. The most frequently cited weaknesses were poor coordination, organization, and follow-through by EBCE staff. In line with their other opinions, some also felt that there was not enough student time on site.

As discussed in Chapter 2, half of the people used as resources by McGwigan and KCSS students were scheduled to be interviewed. In the case of McGwigan, 35 of the 40 RP's scheduled were actually interviewed. Nine of the eleven interviews designated with KCSS RP's were completed.

This section outlines the RP's responses to several questions of interest to the NIE. The results of the total questionnaire are presented in Appendix C, beginning with Table C-72.

How Did the Experience Sites Become Involved in EBCE?

The vast majority of the 45 Resource Persons interviewed (77% at McGwigan and 100% at KCSS) had been contacted by EBCE staff members to ask their participation. No other method was cited by more than two RP's. It would appear that formal recruitment by program representatives was predominantly used to develop the resource pool in Charleston. Table C-73 details the responses to this question.

What Were the Skills and Knowledge Imparted by the RP's?

Cognitive skills. RP's indicated that students were exposed more often than not to tasks which required them to use their reading, writing and mathematical skills. Seventy-two percent of the McGwigan RP's responding indicated that reading skills were needed in the experiences provided students. Sixty percent indicated that writing skills were required; and 57% that mathematics skills were necessary. The percentages for KCSS RP's are similar.

Career awareness. Nearly all of the RP's indicated that they provided general information about various facets of the careers students were exploring as well as instruction in particular job skills. They seem to take a comprehensive view of their teaching role in that skills and general information are given relatively the same weight in their approach. Fewer RP's, though still the majority, referred students to other persons or agencies for additional information in the students' areas of interest.

Additional information on the activities RP's engage in with students can be found in Table C-115.

How Do RP's Assess the Skills Taught?

A relatively small proportion of RP's (16%) either indicated that they did not use any procedures to assess student performance or did not respond to the question. The primary strategies of those who did respond were: conferences with the student's supervisor (if other than the RP) or with other employees who had had contact with the student (accounting for 17% of the McGwigan and 40% of the KCSS responses); and, the use of the EBCE evaluation form (31% of the McGwigan and 13% of the KCSS responses). Other, varied methods centered around observations of student behaviors of one sort or another. The complete breakdown of RP responses in this area is located in Table C-103.

Do RP's Fill Any Non-Instructional Roles in the EBCE Program?

Student selection for experience site participation. In the case of both exploration and more extended learning activities of students, less than one quarter of the RP's responding felt that they (or their organization) played any part in deciding which students came to their sites. The only role mentioned by more than one RP in relation to student selection was screening of students for interest or capabilities. This was cited in ten instances. (See also Table C-96.)

Curriculum development. None of the 44 RP's interviewed indicated that they had any role in the overall development of the curriculum.

About half of the RP's felt that they made a contribution to the development of the students' learning goals during the time the students were on their particular site. Six RP's stated that these goals were developed by the resource organization alone.

Only slightly more than half of the RP's at each of the two sites indicated that they usually saw the student activity sheets which outlined the learning goals at their sites. Slightly less than half of the McGwigan RP's and less than one-quarter of the KCSS RP's indicated that they had seen or that the EBCE staff had explained the kinds of projects or products completed by the students.

Policies of the career education program. Four of the RP's interviewed (all utilized by the McGwigan School) had served on the Advisory Board or Employer Council. These were the only four who felt that they had had any input into the policy development of the program in Charleston.

Additional information relevant to this question can be found in Tables C-84, C-96, C-97, and C-100.

What Are the Benefits and Disadvantages of the EBCE Program as Perceived by the RP's?

To the experience site. The majority of the RP's interviewed (54% of the McGwigan group and 67% of the KCSS) felt that their organization had, on the whole, gained through its participation in EBCE. The second largest category (about one-third of the respondents) felt that their organization had neither gained nor lost. Fifteen percent of the McGwigan RP's indicated that they saw some disadvantages to the organization, but three of the five RP's who so indicated, saw gains as well as losses associated with being involved. The Resource Persons were asked to elaborate on their conception of gain or loss to the organization and these responses were coded into categories. Explanations for perceived benefits and disadvantages varied. The comments most frequently received seemed to indicate that these EBCE students were often regarded in terms of their present and potential usefulness as employees. The four categories which were mentioned most frequently were:

- Students are helpful; act as added staff;
provide assistance
- Opportunity to screen students for employment
- Helps training program; teaching students
helps employees
- Students improve employee morale and the
working environment

The full breakdown of responses to this question is presented in Table C-95.

In terms of both quality and quantity of work performed by regular employees of their organizations, a surprising number of RP's indicated that participation in EBCE had had good effect. Increased quantity and good impact on quality of work was noted by about a quarter of all RP's in each instance. The rest, by and large, had noted no difference. Only one McGwigan RP indicated that he had incurred unanticipated costs as a result of participation in the program, and the majority of RP's at both sites indicated that the demands on their time were no more or less than they had anticipated. Tables C-77, C-78, C-90, and C-91 can be referred to for more complete information.

To the students. Most of the RP's interviewed believed that the EBCE program offered an opportunity to learn some things not as easily obtained in a traditional high school setting. Of the 44 respondents, only four McGwigan RP's did not think that this was the case. As would be expected, the most frequently cited opportunity was practical learning or "real" experience. This accounted for about half of the comments made. Other benefits of the alternative situation cited frequently by these RP's were the learning of specific or job skills and the opportunities for interaction with adults. Table C-101 provides more complete information on these RP opinions.

Based on the students and staff they had met, 43% of the McGwigan and 44% of the KCSS RP's felt that the program was very effective, while 49% and 33% respectively felt that it was somewhat effective. Two McGwigan RP's (6%) felt that it was somewhat ineffective, and two KCSS RP's (22%) did not believe that it was either effective or ineffective. Explanations for their perceptions are interesting for their wide variety. The only categories of response cited by six or more of the total respondent group were:

- It helps students with career decisions; provides opportunity for career exploration;
- It depends on the individual; and
- Students are motivated, interested; the program promotes motivation.

It is obvious that most of these Resource Persons feel that the program benefits the students. It is a reflection of the RP's opinions of the program that the great majority of them feel that they would recommend the EBCE program to other employers and businesses for their potential involvement. Tables C-102 and C-111 provide additional information.

RP's were also asked about changes they had noticed in the students they worked with. Their responses are shown in Table C-116. No RP's indicated that there had been any decrease or negative change shown by the students in any of the behavior categories about which this information was requested: self-confidence, ability to ask questions; ability to respond to questions or directions; ability to take the initiative; and, reliability. Improvement was noted frequently, particularly in the first four categories mentioned above.

Are EBCE Students Prospective Employees of the Experience Sites?

The hypothesis formulated in the section on the effects of EBCE on the experience sites where it is postulated that EBCE students are often regarded in terms of their present and potential usefulness as employees seems to gain additional support from RP responses to the above question. Of those interviewed, 37% of the McGwigan and 22% of the KCSS RP's indicated that EBCE students had already been hired as regular employees of their organizations. (In numbers, this amounts to 15 sites where former students have been hired.) An additional 23 RP's said that they would hire former students, depending on the student and the organizational needs, and only one indicated that he would not. Table C-93 provides the full data pertinent to this question.

Can Present EBCE Resources Expand Their Participation?

Of the RP's interviewed, 17% of the McGwigan and 56% of the KCSS thought that their organizations could extend their involvement to include more students. With two exceptions, the rest felt comfortable at their present level of participation. One McGwigan RP felt that his organization would continue with fewer students, and one KCSS RP indicated that his organization would not continue at all. (See also Table C-108.)

The RP's indicated that a number of difficulties would be associated with increasing their student load. Foremost among them were the lack of personnel and time to deal with students. Table C-109 presents the entire complement of these responses.

What Relationship Do the Experience Sites
Have with other Educational Programs?

Slightly more than half of the McGwigan RP's and less than a quarter of the KCSS RP's indicated that they were involved in educational programs other than EBCE. There were, however, only two specific kinds of programs cited by more than one RP. Seven RP's said that they were also involved in cooperative work, work orientation, work experience or intern programs. Two of the RP's indicated the entire program of their organization was educational (e.g., a museum or college). Table C-114 delineates the complete data in response to this question.

CHAPTER 4

FAR WEST SCHOOL

The school that was created by the Far West Laboratory for Educational Research and Development (FWL) to provide for testing a developing educational program in Experience-Based Career Education (EBCE) was located on the top floor of an office building in downtown Oakland, California. It was established as an alternative high school with the cooperation of the Oakland Public Schools (OPS), and was given the name Far West School to indicate that it was an alternative to all other high schools in the district. The policy making and school governance functions were independent of the OPS Board of Trustees and district administration. All of the school staff were employees of the FWL, but the school was separated geographically from the laboratory and was operated relatively autonomously.

The description of the EBCE school procedures that follows is based on a number of sources of information. Foremost among these are the report of the ethnographic study of the school (Volume III), materials and information produced by the FWL, and what was learned or observed by ETS staff during visits to the school. It is necessarily a summary, intended only to give a knowledge of the school organization, processes, and materials sufficient to understand some of the terminology used in this report. It is a very brief description of what was being evaluated in the study, and because of the individualized or personalized nature of the school program, must be considered only as an overview. The description does include some comments based on information gained in phases of the evaluation study, where such comments seem likely to aid in understanding what went on at the school. This evaluative kind of information is presented in more detail in the ethnographic report (itself a kind of thorough description of the school), or in later sections of this chapter. A more complete and informative description of the school procedures and materials as presently structured can be obtained from material available from the Far West Laboratory.

What Were the Procedures Used
at the Far West School?

The educational program at the Far West School is designed to provide and structure opportunities for students to have varying kinds of experiences at employer and community resource sites. In general, it is expected that students might be out in the community about half of their time, although there is great variation in the proportion of time that different students do spend at the resource sites. Some students were at resource sites much less than half the time; others were there nearly full time. The structuring and organization of the experiences is apparently accomplished largely through activities carried out at the Resource Center (the school site in downtown Oakland), using materials and procedures designed for this purpose. The planning and completion of individual student projects are intended to provide the direction for approaching the use of the external resources and agencies. Early in the school year, students complete a miniproject designed to give students an idea of what a project is or might be. The EBCE staff has also developed five Project Planning Packages for use by students in developing projects of possible interest to them.

There were several structured group activities also intended to facilitate student use of the resource opportunities or to enhance student learning. Of course, scheduling group activities was complicated by the fact that students were at resource sites at different times and for different lengths of time. Among the group activities were Package Discussion Meetings, where those students interested in one of the planning package areas might discuss their separate projects and get ideas for additional projects related to the interest area. Towards the end of the year, these meetings were discontinued, probably because of lack of student interest and participation.

Advisory Group Meetings were another structured group activity, which involved three hours per week for each student. These meetings, conducted by the LC's for their particular students, were in part a device for dealing with general administrative matters involving students, but they were also intended to provide opportunities for the exchange of information among students who might have widely differing personal interests. As the year progressed, however, the students apparently developed their own informal information exchange systems, and the Advisory Group meetings became largely administrative devices.

A third kind of structured group activity was the optional content or process oriented Workshop, which was intended to provide a mechanism for obtaining academic subject matter credit, or for pursuing in detail particular student interests. Workshops were generally, but not always, conducted by school staff members. Examples of some Workshop topics were: Creative Writing, Photography, and Parapsychology.

Tutorials, which could be small group instruction or individualized instruction, were also offered in the Resource Center. Math and foreign language requirements were fulfilled, in large part, through participation in Tutorials. Though many students completed English grammar and writing skills work in the course of their projects, Tutorials were also offered in these areas. The Tutorials were the general responsibility of a Skills Specialist. The tutors engaged to run the Tutorials were predominantly college students.

Although there were a number of school and staff persons who had important roles in working with the students, the key role was that of the Learning Coordinator. While Resource Persons (RP's) in the community were responsible for much of the learning that occurred, the LC's were important determiners in whether students used the resource opportunities, used them profitably, and had some structure for their experiences. There were four LC positions on the staff, but during the course of the year, eight different persons served in these positions due to illness and other circumstances. The LC's had responsibility for working with between 22 and 29 students each. This was probably a very heavy load, and the LC's had little time for maintaining liaison or contacts with the appropriate Resource Persons. Generally, the LC's were not experienced high school teachers, and did not expect to make high school teaching or counseling a long-term career or profession. Most of them had had university graduate training in some field. The LC's included members of both sexes, and represented several ethnic groups.

The responsibility of the LC's may be very broadly defined as that of insuring, insofar as possible, that the students had a reasonably comprehensive and integrated program which responded to individual interests and needs, and also met the requirements for academic progress. The personalized nature of the FWS program meant, inevitably, that the LC became variously a skills diagnostician, a counselor, a catalyst, an exhorter, and on occasion a semi-disciplinarian. The relationship between the LC and the student was often quite informal, and, in many cases,

close personal bonds were formed. In some instances, where an effective relationship could not be established, students were assigned to or chose another LC.

The functions of other Learning Center staff have been described briefly above. Two staff roles have not been mentioned that seem to have been very important to the success of the school: Operations Director and secretary. The Operations Director had a many-faceted job that may have been quite similar to that of a high school principal in some ways. He did, however, keep in close touch with many of the students through both formal administrative channels and informal contacts (in some cases assuming part of the LC role). In interviews and various observations, it became evident that the students had a high regard for the Operations Director, and that his role was a very important one, as perceived by the students. In addition to his duties in relation to the students and the administration of the school, the Operations Director also had a sizeable public relations task to perform in relation to the experimental and developmental nature of the program.

The two secretaries at the Resource Center also performed valuable functions. The secretary for the Operations Director handled student transportation monies, thereby coming in contact with the majority of students on a regular basis. The school receptionist was in an area where students tended to congregate, and, in informal ways, she had an important role in information dissemination, facilitating the exchange of information among students and staff.

Projects

Student projects were, as mentioned above, the vehicle for structuring the resource site experiences so that student learning would occur in academic, career development, and life skills areas. What a project was depended on the particular student's interests, purposes, and capabilities, and can not be defined with precision. The students were to plan, complete, and evaluate their own projects in order to gain experience in these activities. Projects were: to be organized around some topic relevant to a possible career or to a particular discipline; to focus on some important question that could be answered through experiences at resource sites; to include activities requiring communication, interpersonal and other skills; and to produce some observable growth at the completion of the projects. As might be expected, these project purposes and criteria were met with widely varying degrees of fidelity for different projects and

different students. It appeared that students often had the experiences consistent with their interests, then planned or wrote up the project after the fact. This is not to say, however, that such a project was not in many cases quite useful for student learning. The process of reviewing what had been done, and organizing the experience retrospectively was frequently seen as very important for student learning.

The effectiveness of student project evaluation is difficult to deal with at a summary level. Many students undoubtedly did a very effective and useful job of evaluating their own projects, and learned from the evaluation. The RP's with whom they worked were very seldom asked for their evaluation of the project, and, in many cases, were unaware of what the project was. School staff evaluations of the projects probably varied widely in method; the award of high school credit for project work seems often to have been based simply on the student reports of time spent. In most instances, however, the tangible output in the form of a product, or of a written or oral report on the project, was evidently evaluated by the LC.

Project Planning Packages

The five Project Planning Packages mentioned above had been developed in the areas of: Social Science; Commerce; Physical Science; Communications and Media; and Life Sciences. A package consisted of: goals which defined the purpose and scope of the package; a sample of projects that might be carried out in the area; and an annotated list of resources available in the area that could be useful in the completion of projects. The Package Discussion Groups, intended to promote the exchange of information among students working in the same or similar interest areas, were generally seen by the students to be non-productive over the course of the year. This was probably the result of the fact that students found their own ways of exchanging information with each other at times of their choosing, and with students who were compatible. The external evaluation did not address itself directly to the question of the extent to which students individually made use of the Planning Packages. It seems most likely, however, that the Packages were useful in helping new students understand the nature of projects, in helping them to organize materials, and in helping them get started on one or two projects. It also seems likely that their own experiences and information gained from peers and the LC's rather quickly became more useful to the students than were the packages per se.

Resource Sites and Personnel

FWS material makes a distinction between Resource Organizations and Resource Persons, although obviously the former can be helpful to students only if the people in the organization are helpful. The best available information indicates that 85 different RP's as individuals had been contacted during the 1974-75 school year. Students appeared to prefer to contact and to work with individuals, small business, or relatively small community agencies. There were, however, indications that some of the students had found experiences at some of the larger Resource Organizations useful.

The extent of involvement and time spent at a resource site could and did vary widely for different students and for different resource sites. There were three possible levels: orientation, exploration, and investigation. As the program was designed, these three levels were intended to be flexible in definition, and were used primarily to suggest the various possibilities inherent in student relationships with the resource personnel. (During the interview, and in coding interview responses, it was not possible to distinguish student experiences that might be considered as "exploratory" from those that were "investigatory". The only distinctions drawn in presentation of data are between "orientation" and "extended site experience".)

The functions performed by the RP's probably depended on the interactions between time at a site, the type of organization or business, student interest, and Resource Person time and personal characteristics. Most commonly, RP's informed students in various ways about the work they do, and in many cases gave students opportunities to do some of these things themselves. There was relatively little emphasis placed on teaching specific job skills, although learning such skills was probably a by-product at some resource sites. Students tended to leave, or avoid, resource sites where there was an emphasis on talking to them about the work, or where there seemed to be little to do but sit and observe. In some cases, the resource site experiences provided opportunities for students to undertake projects of their own, using the talent and/or facilities available at the site; in other cases, students participated in the on-going work of the site.

To summarize, the Far West School appears to consist of staff who interact closely with students in helping to provide some structure for experiences at the resource sites. Much of what is learned at the resource sites

seems to depend on the extent to which the LC's are able to assist the student in the definition of projects either before or after they have been involved in the experiential learning situations; the Resource Persons and sites seem to be quite literally that--resources. Academic skills and subject matter learning occurs in a variety of ways, including individualized and small group activities at the Resource Center and classes of various kinds outside the Center. Whether the experiential and other kinds of learning are integrated can probably be answered only on a student-by-student basis; it seems to depend on the individual student and/or the interaction between the student and the LC.

What Kinds of Students Enrolled in This School?

The answer to this question is based almost entirely on information provided in the internal evaluation report prepared by the FWL staff (Christensen, Spotts and Evenson, 1975). The schedule for the external evaluation study did not permit the independent collection of student and family background data, at least some of which was obtained by the project staff at the time of student recruitment and selection in the spring of 1974. While ETS might have collected additional information, doing so after the initiation of the external evaluation would undoubtedly have resulted in some duplication of effort on the part of the students involved; it would also have been unusually difficult to obtain this information from control group students who had not been admitted to the school. The source report mentioned above, from which the data presented here were taken, includes more detail. That report should be consulted if additional information is desired.

At the end of the three week orientation period in the fall of 1974, 108 students were enrolled in the Far West School: 84 (78%) of these students were starting their first year in the school, and 24 (22%) were students returning for their second year in the program. There were 96 students in the school at the end of the year, of whom 78 (81%) were completing the first year and 18 were completing the second year. The reasons for the reduced number are given in detail in the FWS evaluation report cited above. It suffices to say here that only four of the students who did not complete the year were classified as "drop-outs" by the school, the rest leaving because of early graduation or other reasons. Descriptive data about the students who were in the program at the end of the year and information about their parents' education are presented in Table 4-1.

TABLE 4-1

DESCRIPTIVE DATA FOR STUDENTS ENROLLED
IN FAR WEST SCHOOL
(All figures are percents)

	First Year (n=78)	Second Year (n=18)	Total (n=96)
Sex			
Male	40	39	40
Female	60	61	60
Ethnic Group			
White	36	72	43
Black	53	17	46
Spanish Surname	9	6	8
Other	3	6	3
Grade			
10	55	0	45
11	26	61	32
12	19	39	23
Father's Education			
Less than H.S. Diploma	20	0	17
High School Diploma	23	28	24
Some College	18	11	17
College Degree	19	17	19
Graduate Work, No Degree	0	6	1
Graduate Degree	3	17	5
Other	8	17	9
No Response	9	6	8
Mother's Education			
Less than H.S. Diploma	18	0	15
High School Diploma	24	22	24
Some College	23	28	24
College Degree	17	28	19
Graduate Work, No Degree	3	0	2
Graduate Degree	4	11	5
Other	5	11	6
No Response	6	0	5

Given the limited kinds of data available, it seems reasonable to conclude that the student body at the Far West School is quite heterogeneous with respect to background and experience. The percentage of females in the school is somewhat higher than would be expected. There is also a disproportionately large percentage of 10th grade students, with a correspondingly low percentage of seniors. However, all but one of the eight OPS High Schools were represented by at least one student, and six were represented by ten or more students.

The most obvious finding from the data presented is the marked difference in the characteristics of the first and second year students. These differences can be attributed to differences in the recruiting procedures used over several years. Students recruited in the spring of 1974, who represent about three-quarters of the first year students, are much more representative of the Oakland Public Schools population than is the total first year group; the second year students are quite unrepresentative. (The remaining 25% of the first year group of students were admitted for a variety of reasons. Some were siblings of students already in the school; some had applied for admission in the spring of 1974, but were not accepted at that time.)

Perhaps the most important of the differences between the two groups, other than the fact that the second year students do not include any 10th grade students, is related to parents' education. This difference might best be summarized by the fact that one or both of the parents of 40% of the second year students have at least a college degree, while this is the case for only about a quarter of the first year students.

The main reasons for attending the Far West School, as given by 87 of the students, are shown in Table 4-2. The larger percentage of students cited reasons that are relevant to an EBCE school goal (finding out about careers--56%) and to an EBCE procedure (more individual attention--48%). Forty-five percent of them marked a reason that might be interpreted as a desire to get away from some unsatisfactory situation, as opposed to seeking the opportunities provided by the new situation. More than a quarter of these students were seeking the opportunity to have learning activities outside of school.

TABLE 4-2

PRINCIPAL REASONS FOR ENROLLING IN THE
FAR WEST SCHOOL 1974-75
(All figures are percents)

<u>Reasons</u>	<u>First Year (n=72)</u>	<u>Second Year (n=15)</u>	<u>Total (n=87)</u>
To find out about careers	54	67	56
To have more individual attention in my school program	44	67	48
To get into a program different from regular school	44	47	45
To have learning activities outside of school	26	33	28
To get job training	25	13	23
To receive counseling about what to do after I finish school	22	27	23
To get help in finding a job	19	13	18
Other	3	13	5
To make new friends	3	0	2

What School Procedures Did the Students Find
Useful in Learning About Careers?

A review of the in-depth interview schedule (described in Chapter 2 and presented in Appendix B) will indicate that a great deal of quite detailed information about learning processes was obtained. This abundance of detail is, of course, both a strength and a weakness in the use of interviews. This is particularly true when, as in this instance, there was great reliance placed on the use of free response questions directed to the personalized educational experiences of each respondent. After the responses were obtained, it was essential to develop coding systems for the responses that would allow for the organization and reduction of the information to a manageable form that would also retain with accuracy as much of the sense of the original responses as possible. The very limited time available for the pretesting of the interview schedule meant that the task of defining the limited choice categories and rating scales could not be done prior to data collection. It had to be carried out after the fact, a less desirable alternative.

In providing information to answer the series of questions that follow, tabular presentations of data are used to identify what appear to be the most important conclusions to be derived from the data. All of the data from which these abbreviated tables were taken are presented in Appendix D for the use of those readers who may wish to review the detail. Each table in the body of the report is referenced to the more detailed table in Appendix D by number.

Reviewing very briefly the information on student selection and sampling presented in Chapter 2, interview data were available for two groups (experimental and control) of students who applied for admission to Far West School in the spring of 1974, and for a group of students who had been in the school for two years. The two former groups are identified here as experimental and control group students. The third group is identified as second year; there was no control or comparison group for these students. The interview samples of first year students were randomly selected from the experimental and control groups, which had themselves been identified through random selection at the time of admission. All of the second year students who could be contacted and would agree were interviewed.

How Useful Were the Resource Site Experiences
Arranged by the EBCE Schools?

This question can be answered only for students enrolled in EBCE schools; i.e., it is not a meaningful question for control group students. As explained above, however, these program generated experiences represent the heart of the EBCE concept, and are the feature that most distinguishes these schools from the conventional high schools. In general terms, the answer to this question for Far West students is:

- Approximately three-quarters of the students found some resource site experiences relevant to their first career interest.
- Fewer of the first year students, and more of the second year students found the experiences relevant to their second career interest.
- The exploration or investigation experiences were found to be useful by a much higher percentage of the second year students than the first year students.

More precise answers may be obtained using the data in Table 4-3, or by reference to Table D-1, in the Appendix. Explanations for the marked differences between the first and second year students can be offered only as speculation. The most likely explanation appears to be that the first year students had to take time to learn about the new and different program, and to "feel their way" in learning how to make good use of the resource sites. The second year students had had the opportunity to do much of this during the previous year. Another possible explanation is that the first year students, and particularly the 10th grade students, are not yet in a position to relate experiences to one or more defined career interests. In other words, their career interests may still be quite general, so they are still looking for experiences that will help to clarify interests.

TABLE 4-3

LEVELS AND NUMBERS OF EBCE SITE EXPERIENCES STATED
AS USEFUL FOR CURRENT CAREER CHOICES
(All figures are percents)

	<u>First Year</u>		<u>Second Year</u>	
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
Exploration or Investigation at				
Three or more sites	-	-	-	-
Two sites	3	3	12	9
One site	38	15	59	54
Orientation Only	28	24	-	-
Formal Classes Elsewhere	3	3	6	18
Not Codable	-	3	-	-
None Cited	30	52	24	18
Number of Respondents	40	33	17	11

*Seven first-year and six second-year students had no second choice.

Note: These figures are derived from Table D-1.

How Useful Were the Resource Center Activities?

In general terms, the answer to the question is:

- About a quarter of the EBCE students cited one or more Resource Center activities that were useful for the first choice career, and about the same percentage of them felt that such activity was useful for their second choice career.

It should be remembered that this question was oriented to learning about specific careers of interest which the students cited during the interview. Students may well have participated in Resource Center activities that they believed useful for other career related purposes.

A more precise answer to this question may be developed from the data in Table 4-4.

Are Non-School Activities Useful in Learning about Careers?

- A large majority of the students in this study have found some non-school activities useful in learning about careers of interest.

More precise answers to this question can be developed from the information in Table 4-5. It should be particularly noted that the experience site activities of the EBCE students are part of their school, and are not included here. For these students, activities listed here are in addition to the resource site experiences.

TABLE 4-4

RESOURCE CENTER ACTIVITIES CITED AS
USEFUL FOR CURRENT CAREER CHOICES
(All figures are percents)

	<u>First Year</u>		<u>Second Year</u>	
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
Two or more activities with staff member by name	5	3	-	-
One or more field trips	NA	NA	NA	NA
One activity with staff member by name	3	-	-	-
One activity cited	13	6	12	9
Talk with teacher or Resource Center staff member	10	9	-	-
Outside speaker or class prior to EBCE application	5	3	6	9
Other or uncodable	-	6	-	-
No activity cited	65	74	82	82
Number of respondents	40	34	17	11

NOTE: These data are derived from Table D-2

TABLE 4-5

NON-SCHOOL ACTIVITIES CITED AS USEFUL
FOR CURRENT CAREER CHOICES
(All figures are percents)

	<u>First Year</u>				<u>Second Year</u>	
	<u>Experimental</u>		<u>Control</u>			
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
One location with adult involvement for extended period of time	13	15	22	31	18	9
Leisure time activity or making something at home	18	15	28	27	24	18
Talking with family or other adult	18	15	22	8	18	18
Job	8	-	-	-	12	9
Other or uncodable	18	6	9	8	-	18
No activities cited	28	47	19	27	29	27
Number of respondents	40	34	32	26	17	11

Note: These data are derived from Table D-3.

How Useful is Reading in Learning About Careers?

- A great majority of all the students in the study identified some reading that had been useful in learning about careers, and reading was mentioned more often with respect to first choice careers.
- The material the EBCE students cite probably requires more reading and is more directed toward particular careers than is the case for the students from conventional high schools.

Although the differences between EBCE and other students are not statistically significant, larger percentages of the former group were able to identify by name material they had read. This was particularly true of the second year students. Information on which these general conclusions are based is given in Table 4-6.

Do the Experiences and Activities Result in Useful Products or Specific Accomplishments?

- About 60% of the first year EBCE students, and more than 80% of the second year students mentioned some particular product or outcome useful in learning about careers of interest.

There are no statistically significant differences between the first year experimental and control group students, although the former mention products or written reports relatively more often than the latter, and the control group students mention new or revised career plans relatively more often than do the EBCE students. Table 4-7 provides more information on this question.

Are the Student Experiences Oriented Toward Career Choice?

- Approximately half of the first year students in both the experimental and control groups appear to have some career focus with some useful experiences relevant to this focus.

TABLE 4-6

READING ACTIVITIES CITED AS USEFUL
FOR CURRENT CAREER CHOICES
(All figures are percents)

	<u>First Year</u>		<u>Second Year</u>	
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
One or two books with titles cited with or without other reading	33	18	59	27
Magazines, pamphlets, etc., only	14	21	-	9
Reading cited with no detail	28	24	24	45
Other or uncodable	10	-	6	9
No reading cited	18	38	12	9
Number of respondents	40	34	17	11

Note: These data are derived from Table D-4

TABLE 4-7

TYPES OF STUDENT ACTIVITIES AND PRODUCTS RELATED
TO SELECTION OF CURRENT CAREER CHOICES
(All figures are percents)

	<u>First Year</u>		<u>Second Year</u>	
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
Individual or group projects	33	18	35	36
Term papers or other written reports	10	9	29	36
Specific learning or skill improvement activity	-	12	-	-
New or revised plans	18	3	18	9
Other or uncodable	3	-	-	-
No projects or accomplishments cited	38	58	18	18
Number of respondents	40	33	17	11

Note: These data are derived from Table D-5.

- About 70% of the second year students have a career focus and relevant experiences.

If the data in Table 4-8 are considered from the point of view of whether students cite experiences they found useful in the overall context of career planning without regard to career focus, the percentages are again about equal for the experimental and control groups, and none of the differences are statistically significant. About 10% of the first year students in both of these groups appear to have no career focus, no useful experiences, or appear to be vague and confused about the whole matter of careers. It should be noted that none of the second year students were classified in this way.

Generally, the analysis of these data for the first and second year students suggest conclusions similar to those discussed in connection with the usefulness of the resource sites. It may be that many students in the first year of the program, particularly 10th grade students, should not be expected to have a career focus yet, or to be making even tentative indications of career interest. The second year students have had a chance to explore some of their possible interests, and are in a better position to relate interests and experiences.

What Did the Students Think About the School?

All the students in the study, including the control group students, were asked if they would apply for admission to the Far West School if they were faced with the choice again. The response to the question posed above seems quite clear.

- Nearly all the students who had attended the Far West School said they would reapply, with only one saying he or she would not reapply, and an additional three saying they weren't sure.

This information is summarized in Table 4-9.

When asked to give reasons for their responses about reapplication, more than half (52%) of the first year students, and nearly half (45%) of the second year students cited "lack of rigid structure." The most popular reason cited by the second year students (55%) was "greater independence." "Opportunity to explore careers/jobs" was mentioned by 28% of the first year students and by only 18% of the second year students. At the time of the

TABLE 4-8

PERCENTAGES OF STUDENTS CLASSIFIED BY
CAREER FOCUS AND RELATED EXPERIENCES

	<u>First Year</u>		<u>Second Year</u>
	<u>Experi- mental</u>	<u>Control</u>	
Two careers of interest, experience related to both experience related to one	8 18	28 13	35 12
One career interest, related experience	18	12	24
Interest without career focus, related experience	18	9	12
Potential career interest, no experience	23	22	6
No career or interest focus, but useful experiences	3	6	-
No focus, no useful experiences, or confused about careers	13	9	-
Not codable	3	-	12
Number of respondents	40	32	17

Note: These data are derived from Table D-6.

TABLE 4-9

PERCENTAGES OF STUDENTS WHO WOULD AND WOULD NOT
REAPPLY FOR ADMISSION TO THE EBCE SCHOOL

	<u>First Year</u>		<u>Second Year</u>
	<u>Experimental</u>	<u>Control</u>	
Would reapply	89	59	83
Would not reapply	--	25	8
Not sure	12	16	8
Number of respondents	26*	32	12

* This question was not asked of the first fourteen students interviewed.

actual application, more than half of the students gave this as the major reason for wanting to get into the Far West School, and 40% of the control group students still cite this as the reason they would reapply. It seems clear that while nearly all the students like the school, and presumably think it was worthwhile, the career knowledge and experience aspect is no longer the major reason for their positive attitude.

When the reasons given were classified as being positive or negative in the feelings expressed about the school, the 38 EBCE students were very clearly positive, with 71 of the reasons being positive about FWS and only 16 being negative. Some of the students also gave reasons that were really related to the conventional school programs. It is clear, however, that the reasons generally indicated a liking for the EBCE schools rather than a dislike of the conventional school programs, since only 23 reasons were classified as negative about the conventional school as compared with the 71 pro EBCE reasons.

This summary of the positive and negative reasons is based on data presented in Table D-7.

Are the Students Different Because They Attended the Far West School?

The information on student effects, other than basic skills, was collected in the interview context oriented toward career choice, as discussed in Chapter 2. Prior to discussion of the ways in which the students differ as a result of attendance at Far West School, therefore, it seems appropriate to summarize briefly the information obtained about students' career interests.

Considering both first and second career choices, the 40 first year students were interested in a total of 35 different careers or jobs. The particular careers of interest are detailed in Table D-8, which shows the percentages of students in each group who picked particular careers.

In order to make some generalization about the kinds of careers/jobs these students were interested in, it was necessary to group the choices in coarser categories than were used for obtaining career requirements scores. Career groups defined in the Project TALENT five-year follow-up study were used for this purpose, because they were based on longitudinal data for high school students,

and ordered careers approximately in terms of the amount of education and training required. The most popular career groups for the first choice careers of both the experimental and control groups combined were: Teaching and Social Sciences (14%), Fine or Performing Arts, and Secretarial Clerical Jobs (13% each). Although there are not enough students to permit a statistical test of the differences between the experimental and control group choices, inspection of the data indicate that there are no appreciable differences.

With the exception of teaching careers, students tended to choose careers that require some training or limited education beyond high school, but those careers requiring extensive formal education were not chosen by large percentages of students.

The popular careers for the male students in both the experimental and control groups were in the areas of Fine or Performing Arts and Technical Jobs, with no male in either group choosing careers in Construction Trades. The popular careers for females in both the experimental and control groups were Teaching and Secretarial-Clerical Jobs. There are no apparent differences between the experimental and control groups in the extent to which females express interest in careers traditionally chosen most often by men.

The data used as the basis for these general conclusions about types of careers of interest are presented in Appendix Table D-9.

Have the Students Considered More Than One Career?

- About one-eighth of the first year students indicate only one career that is presently of interest to them.
- About one-third of the second year students are now interested in only one career.

There is no statistically significant difference between the experimental and control group students in the extent to which they express interest in only one career. The fact that a somewhat larger percentage of second year students now have only one career interest may reflect the fact that they have narrowed their interests. The interviews as a whole suggested an alternative explanation, however. A fair proportion of these students have really pursued only one interest in their experiences while at the Far West School, and may not have looked closely at second career areas. The data on number of careers of interest are presented in Table 4-10.

TABLE 4-10

PERCENTAGES OF STUDENTS
STATING PREFERENCES BETWEEN CAREERS

	<u>First Year</u>		<u>Second Year</u>
	<u>Experimental</u>	<u>Control</u>	
Two Careers of Interest			
Prefer one over another	55	50	41
Equal in interest	26	31	24
Don't know	5	--	--
One Career of Interest	13	19	35
Number of respondents	38	32	17

What Factors Do Students Consider When They Choose Between Careers?

The students in both the EBCE and conventional school programs named a variety of different factors they would consider in choosing between their two careers of interest. On the average, the students gave three or four reasons, with no marked differences between groups in the numbers of factors which were considered. The student responses were coded using twenty different categories. The analyses of these coded responses are presented in considerable detail in Table D-10. Recognizing the difficulty in providing a relatively simple answer to such a complicated question, a general answer is:

- There are no appreciable differences among the three groups with respect to the classes of considerations mentioned in choosing between careers.
- There is only one particular consideration (attitude toward academic preparation) on which the difference between the experimental and control group is statistically significant. This difference is in favor of the experimentals.

It seems interesting that none of the students mentioned money required to prepare for the career. This may be a reflection of the fact that relatively few of the students are interested in careers requiring extensive formal education. However, many of the students did express interests in careers that would allow them to be self-employed, and some of these careers would require some capital investment. It may also be of interest that very few students mentioned amount of supervision required in the career. By and large these students seem to like situations that provide a high degree of personal freedom and lack of rigid structure.

What Do Students Say About Their General Career Interests and Knowledge?

- There are no obvious or statistically significant differences among the groups in the number of career areas in which they express no interest, or report that they have no knowledge.
- There are no significant differences in the number of areas in which both high interest and high knowledge are reported.

Detailed data on self-reported interest and knowledge are given in Tables D-11, D-12, and D-13. Of course, self-report of knowledge about a career area does not mean that in fact the student is knowledgeable about it. Information about actual knowledge of requirements for careers of interest was obtained from a separate question. These self-ratings may, however, be indicative of the self-confidence a student has in the area of career knowledge, which is related to one of the EBCE goals. Additionally, if students say they have no interest in a number of areas, it may be indicative of a premature restriction of the number of options open for career choice.

Do Students Learn About the Requirements for Careers?

There is quite a range in the knowledge of career requirements for these students. For this reason, and because of the difficulty of assessing such knowledge when students choose such a variety of careers, the question can be answered in only the most general terms, and any answer must be considered to be quite tentative. With these cautions in mind it is possible to say that:

- About half of the EBCE students know 70% or more of the characteristics that are necessary for entry in the careers of interest to them.
- However, they are not as well informed about the characteristics that are not necessary.

The control group students, on the average, did not obtain career requirements scores as high as the EBCE students, and the differences between the experimental and control groups are statistically significant, particularly for the necessary requirements.

Data relevant to these statements are presented graphically in Figure 4-1, and are presented in much more detail in Table D-14.

Do Students Choose Careers That Are Consistent With Their Knowledge of Themselves?

As indicated in Chapter 2, this question can be answered in only the most tentative fashion with the data available; it is a difficult, and perhaps even impossible, question to answer at best. Under the conditions operating for this study, the question was approached by simply counting the personal characteristics on which the student rated himself or herself in a way that is consistent with

Far West School

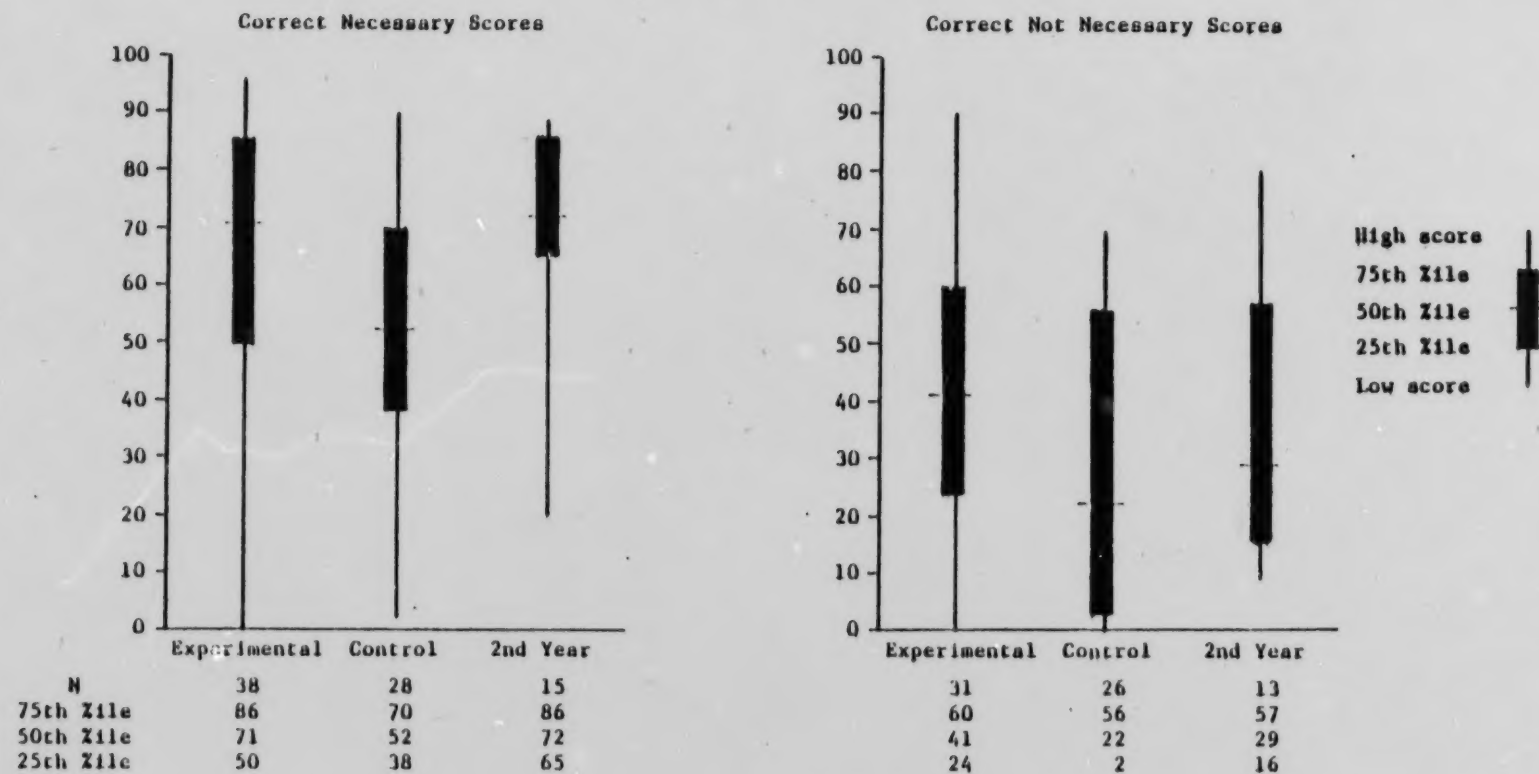


Figure 4-1. Distributions of Career Requirements Scores

the student's perception of the requirements for the first career of interest. The distributions of these consistency indicators are shown in Tables D-15 and D-16. In very general terms:

- The EBCE students are not significantly more consistent than the control group students, although the average scores for the control group students are slightly lower than for the EBCE students.

What Personal Characteristics Do Students Think Have Been Changed During the School Year?

Students might perceive changes in themselves in an almost unlimited number of characteristics as a result of various kinds of experiences. In Chapter 2, it was noted that students were asked to mark 41 personal characteristics where they felt they had changed in either a positive or negative direction, leaving blank those in which they thought they had not changed. Using these data, the question may be answered:

- On the average, EBCE students thought they had changed in a positive direction on 40-60 percent of the characteristics and in a negative direction on about seven percent of them.
- There was very little difference between the experimental and control group students with respect to the number of characteristics affected.

In examining those characteristics on which most of the EBCE students stated they had changed; it is observed that over 65% of first year students and even larger percentages of second year students indicated positive change on three characteristics: self-discipline, ability to use resource and reference materials, and planning and organization of time. The differences between the percent of experimental and control group students who thought they had changed on these three characteristics were statistically significant. Presumably these are areas of personal development where the students see the EBCE school as having been most effective.

Areas of personal development in which at least 10% of the first year students thought they had changed negatively were: mathematical comprehension and artistic ability/creativity. It should also be noted that about 50% of the second year students thought they had changed

positively in these characteristics, but, in general, the areas of artistic, musical and dramatic creativity were ones that the students felt had not been particularly altered by the school program.

Somewhat more detail relevant to these areas of perceived change is given in Table D-17.

How Do the EBCE Students Feel About Career Planning?

The Career Planning Attitude ratings, defined in Appendix B, might best be described as combining some sense of control by the students in the choice of a career or job with a willingness on the part of the student to be open to new possibilities for career and job selection and future changes. These ratings were made by the interviewer on the basis of what the student said during the entire interview.

The distribution of the ratings is presented graphically in Figure 4-2 and in more detail in Table D-18. On the basis of this information, the answer to the question is:

- About half of the first year and all of the second year students in the Far West School are positive in their attitudes toward career planning, with feelings that they can have some control over their choices of careers and can consider a variety of careers.

The differences between the experimental and control group students are not significantly different statistically. Again, it seems likely that the first year students in the Far West School have not had sufficient time or opportunity to develop these positive attitudes. It is also possible, of course, that such attitude development is in part a function of age and/or maturity. Because the second year students differed in a number of respects at the time they entered the school, these possible explanations must be considered to be quite tentative. This seems a matter worth continued investigation where circumstances permit further study.

Does the EBCE School Experience Have an Effect on the Students' Basic Skills?

This question can be answered in terms of three kinds of skills: Oral Communication, Reading, and Arithmetic.

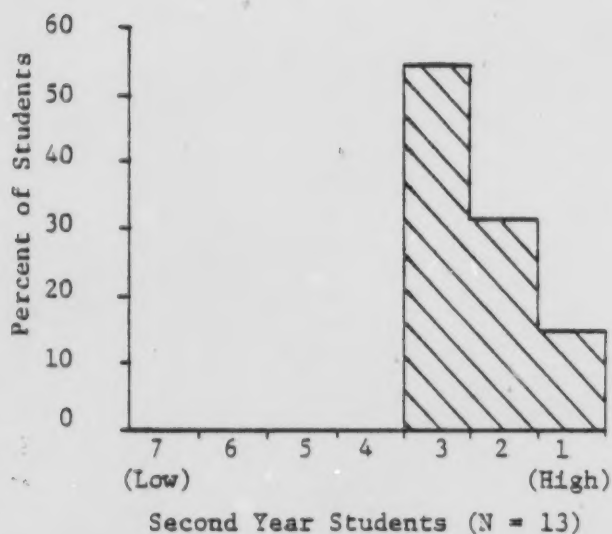
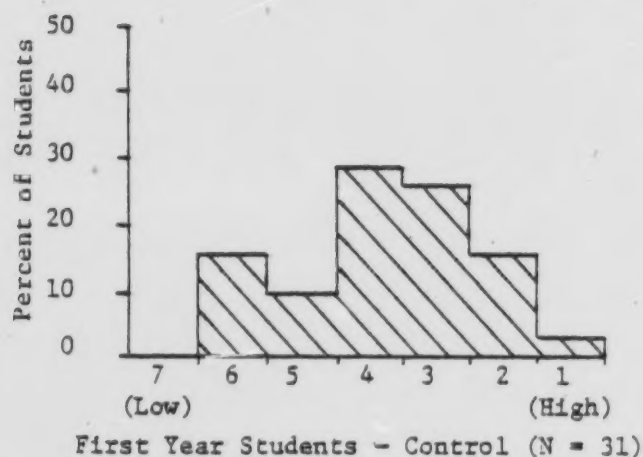
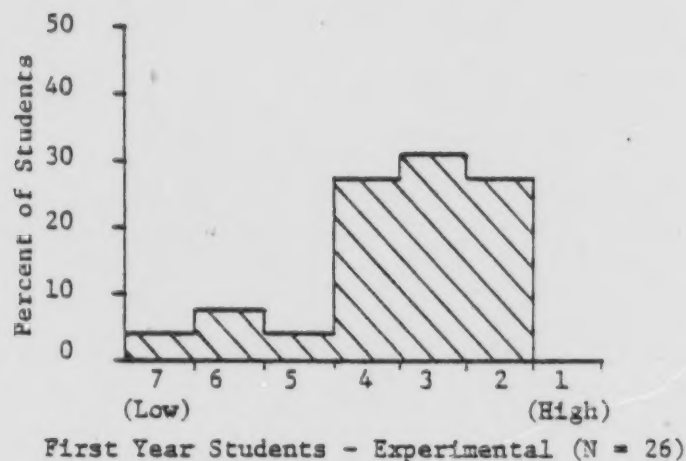


Figure 4-2. Career Planning Attitude Ratings

Oral communication skills. The interviewer rated the students on this skill using a scale defined in Appendix B. Analyses of these ratings by groups is presented graphically in Figure 4-3, and in somewhat more detail in Table D-19. This information indicates that the answer to the question is:

- More than 60% of the first year students at the Far West School were able to respond orally to complex questions with answers that were to the point and fairly brief.
- Only about 35% of the control group students were judged to be able to give responses of similar quality.

The differences between the experimental and control group students were statistically significant. It is also noted that the second year students were apparently not as well-prepared to communicate orally as were first year students. One caution should be observed in consideration of these results. Assessment of oral communication skills is probably affected by the understanding and knowledge of the content to be communicated. Since career choice and planning were the topics around which the interview was constructed, these ratings may be biased in favor of the EBCE students simply by the content of the material being discussed.

Reading skills. This skill was measured by one score on the CTBS. The information available is presented in Figure 4-4 and Table D-20. These data indicate that:

- Both groups of Far West School students showed virtually no increase in their reading scores during the year.
- The control group students did show an appreciable increase in test scores, and after adjustment for pre-test score differences, the control group students scored significantly higher on the post-test than did the Far West School students.

On the basis of the results from the Reading Comprehension Test, it is apparent that the EBCE students as a group did not increase their reading skills as much as the students in the more conventional school program.

Arithmetic skills. These skills were measured by two tests in the CTBS. The results are presented graphically in Figures 4-5 and 4-6, and in more detail in Tables D-21 and D-22. These data indicate that:

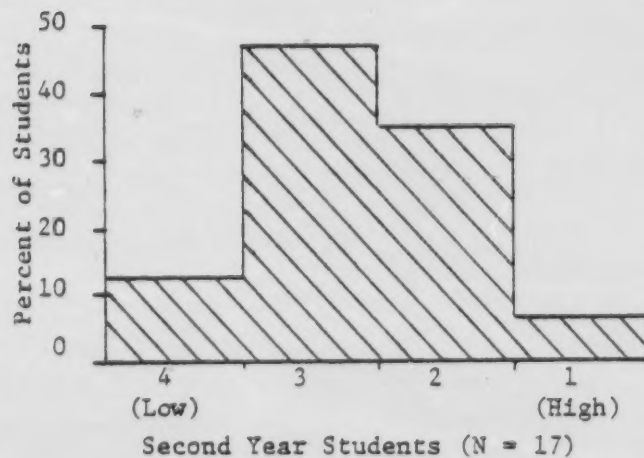
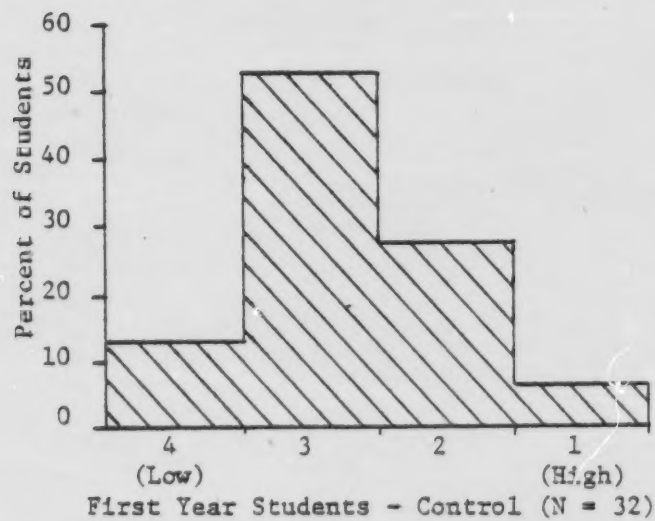
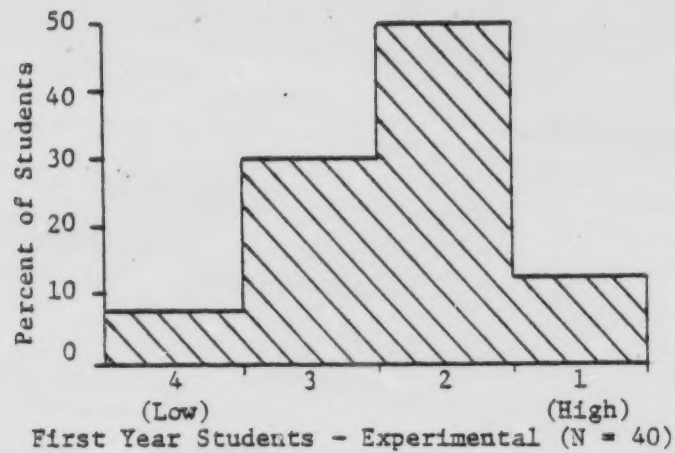
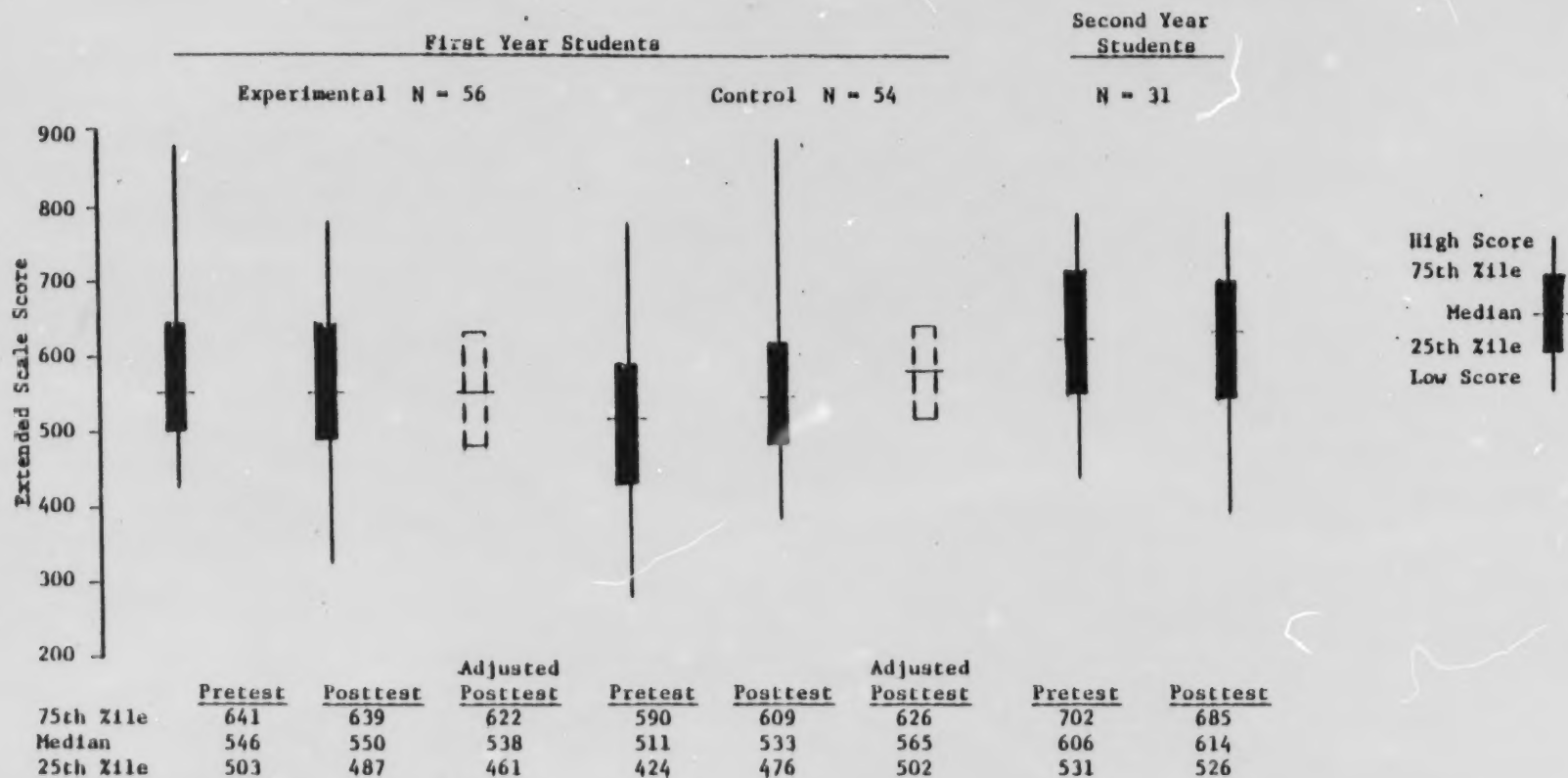
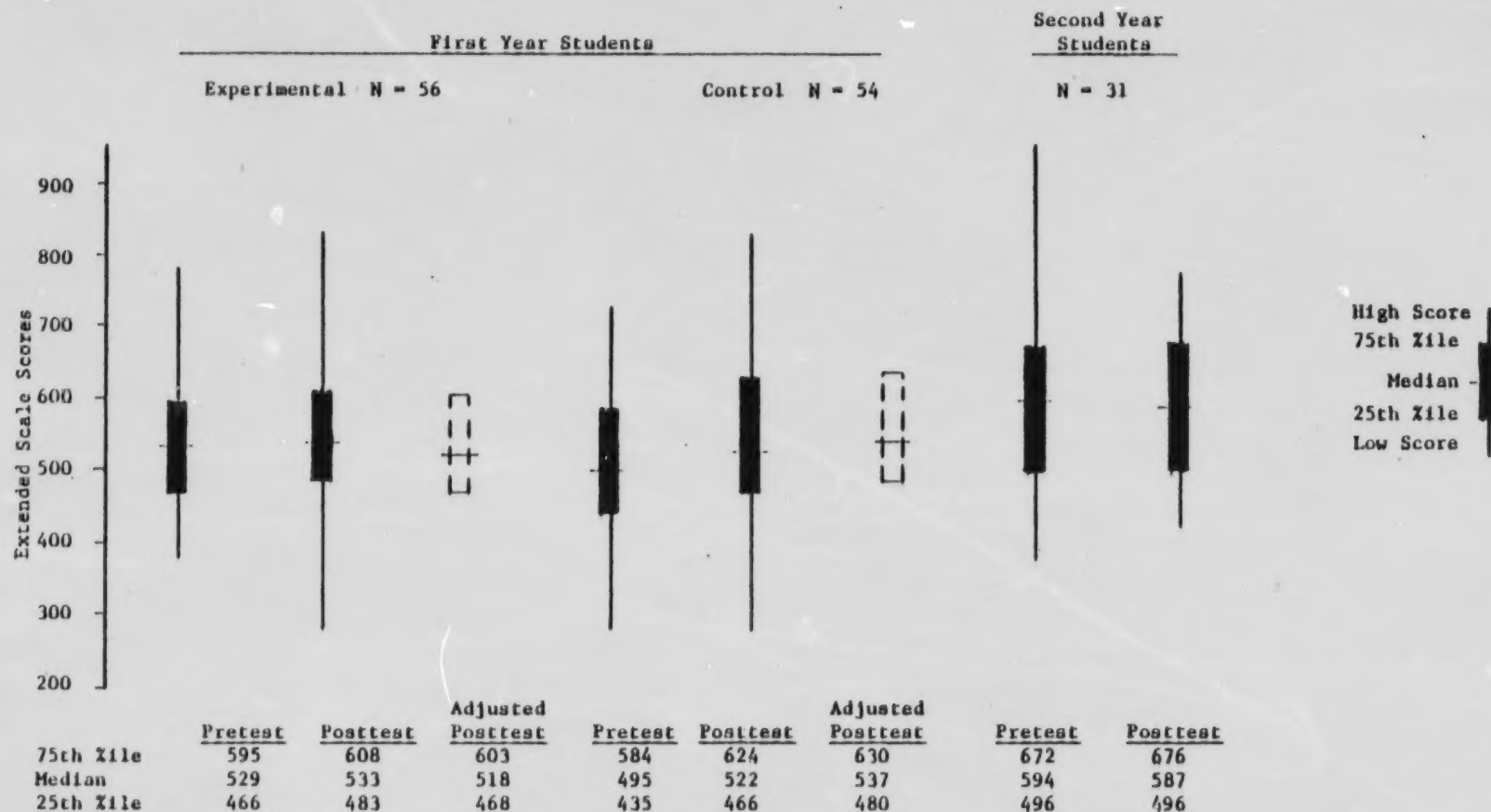


Figure 4-3. Oral Communications Ratings



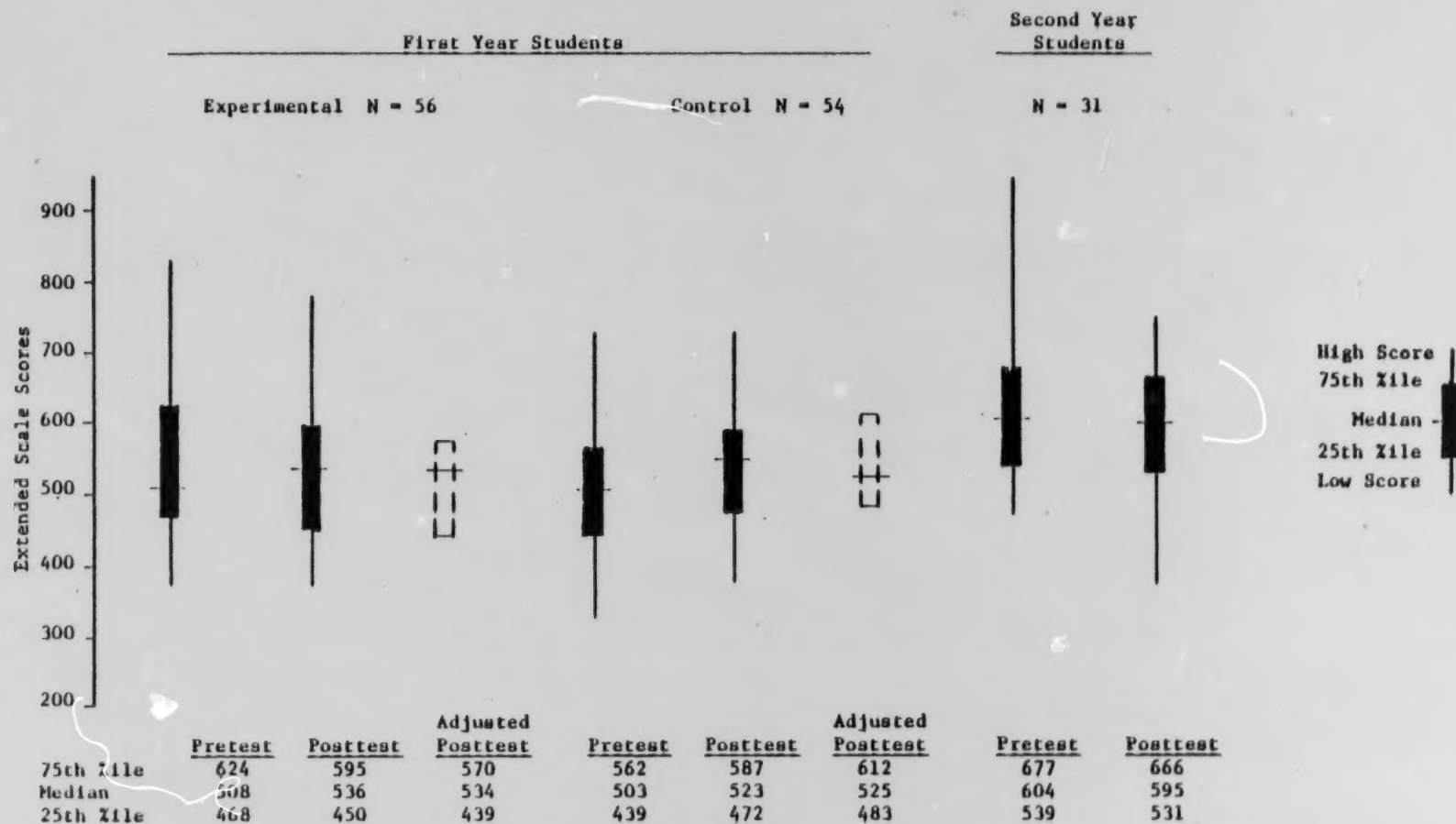
Note: The percentiles and representation for the Adjusted Posttest distribution are only approximations. They are given only to provide an indication of the effect of corrections for difference in pretest performance.

Figure 4-4. CTBS Reading Comprehension Pre and Post Test Scores



Note: The percentiles and representation for the Adjusted Posttest distribution are only approximations. They are given only to provide an indication of the effect of corrections for difference in pretest performance.

Figure 4-5. CTBS Arithmetic Concepts Pre and Post Test Scores



Note: The percentiles and representation for the Adjusted Posttest distribution are only approximations. They are given only to provide an indication of the effect of corrections for difference in pretest performance.

Figure 4-6. CTBS Arithmetic Applications Pre and Post Test Scores

- There are only very small increases in the scores on the two arithmetic tests for the first year students over the year, with somewhat larger increases for the control group students, although the differences between the groups are not statistically significant.
- The second year students showed some decrease in average scores during the year, but it does not represent a statistically significant loss.

In considering these results, it should be noted that end of the year testing using standardized tests is probably not considered to be very important by many of these students. This is probably particularly true for high school seniors, who comprise a large part of the second year group. Graduation does not depend at all on the results of these tests, nor do they have any important effect on decisions to be made by or about the students. In short, it seems most likely that students may be cooperative in taking these tests, but there is little reason to believe that their motivation during the test can be very great. It might also be worth noting that there are little or no data available about growth on these tests in the eleventh or twelfth grades, either longitudinal or cross-sectional. Experience and logic do suggest, however, that skills growth as measured by the tests probably levels off in these later years, even though there is no particular reason to think that the students have generally approached the ceiling on the tests.

What Plans Do These Students Have for Next Year?

The time available for the interview did not allow for the collection of a great deal of detailed information about plans for the next year. Additionally, most students' plans seemed still to be at a rather general level; i.e., continue high school, go to college, get a job, etc., with little more detail that could be elicited by the interviewers. This is not to say that extended conversations or discussions with the student of the kind that a Learning Coordinator or High School Counselor might have over time would not reveal more detailed plans; but they weren't forthcoming in an interview conducted by a stranger under rather tight time constraints. In general terms, the question may be answered as follows:

- All of the 10th and 11th grade students in each of the three groups planned to continue with their education.
- About a quarter of the FWS students anticipated early graduation from high school, however, and these 10 students all intended to enter a community college after this early graduation.
- About 10% of the FWS students planned to return to an OPS High School for the next year, and about a fourth of the control group students planned or hoped to be able to enroll in an EBCE high school.
- All but two of the 12th grade students expected to continue some kind of formal education, and both of these were FWS students. The first year students--both experimental and control--were about equally divided between two and four year colleges and some kind of vocational-technical school. Two-thirds of the second year students planned to go to a vocational-technical school.

Information about student plans is given in Tables 4-11, 4-12, and 4-13.

What Did the Parents Think of The Far West School?

This section outlines some of the major findings about parents' opinions of the Far West School. The results of the total questionnaire administered to parents are presented in Appendix D, beginning with Table D-23.

As discussed in Chapter 2, efforts were made to obtain questionnaire responses from parents of all students who could be identified as being enrolled in the Far West School during the spring of 1975. Ninety-one parents of 99 students were identified, and questionnaires were mailed. Following a second mailing and a telephone follow-up, interviews of non-respondents were conducted by telephone where the parents could be reached. In total, questionnaires were received from or interviews conducted with 78 of the 91 parents.

TABLE 4-11
EDUCATIONAL PLANS FOR 10TH AND 11TH GRADE STUDENTS

	<u>First Year</u>		<u>Second Year</u>
	<u>Experimental</u>	<u>Control</u>	
Early graduation, community coll.	4	1	6
Vocational or technical school	0	0	1
EBCE High School	22	7	1
Regular OPS High School	3	16	1
Not asked or uncodable	2	2	2
Total	31	26	11

TABLE 4-12
POST HIGH SCHOOL PLANS FOR EMPLOYMENT OF
12TH GRADE STUDENTS

	<u>First Year</u>		<u>Second Year</u>
	<u>Experimental</u>	<u>Control</u>	
Have Full-time Job			
Part-time education	0	0	2
Seeking Full-time Job			
Part-time education	0	2	0
No educational plans	0	0	1
Have or Seeking Part-time Job			
Part-time education	3	1	0
Full-time education	1	0	0
No Job Plans			
Part- or full-time education	8	5	10
No educational plans	1	0	0
Total	13	8	13

TABLE 4-13
POST HIGH SCHOOL EDUCATIONAL PLANS OF
12TH GRADE STUDENTS

	<u>First Year</u>		<u>Second Year</u>
	<u>Experimental</u>	<u>Control</u>	
Full-time Education			
Four-year college	4	2	1
Vocational-technical school	4	2	8
Don't know	0	1	0
Part-time education			
Two-year community college	4	3	3
Total	12	8	12

In any high school, parents undoubtedly differ greatly in the amount of information they have about the school and in the ways they get the information. It is important, therefore, to describe the kinds of information on which parents base their opinions of the school, and the ways in which they have obtained this information, in order to make some judgement about the validity of the opinions reported. Of course, the validity of the opinions in some sense can mean only the confidence that parents have in their opinions. If the quality of information on which the opinions are based varies widely, the validity of the opinions as reflections of what the real school is will also vary from parent to parent. For very obvious reasons, no attempt could be made in this study to determine the accuracy of the information the parents have, which for an individualized educational program would vary for every set of students and parents.

How Do Parents Learn About the Schools?

Parents were given a list of nine kinds of contacts they might have had with the school, and asked to indicate whether or not contact had been made with FWS in each manner. The list below shows the methods of contact cited by at least one-third of the parents who responded as having been utilized in their dealings with the Far West School.

- Phone conversations
- Individual meetings with staff members
- Mailed information about the school
- Oral reports on performance of son or daughter
- Group meetings with staff and other parents

It is evident that a variety of methods of contacting parents and keeping them informed have been used. However, only two kinds of contacts were indicated by more than half the parents: phone conversations and individual meetings. More detail on the response to this question is provided in Table D-31.

About seventy percent of the parents indicated that they had had at least one or two contacts with the school during the school year. Of the 78 parents responding, 65% said they had enough information about the school in general, and 71% said they had all the information they thought necessary about the progress of their sons or daughters. Tables D-30, D-32, and D-33 provide additional information about the frequency of parental contact with FWS and parents' opinions about the adequacy of the information they receive.

What Are the Overall Parent Evaluations of the School?

Eighty-six percent of the parents said that overall the school was better than those previously attended by the student, 94% said their sons or daughters liked the school better than those attended previously, and 78% said they thought their children had learned more than they would have in other schools. Tables D-24 through D-26 provide the full breakdown of parents' responses in these areas.

When asked to name particular strengths and weaknesses of the school, 40% of the parents who responded said they could not think of particular weaknesses, while about 90% identified at least one strength. The question as posed was open-ended, and the responses were coded into categories. The lists below show the coded responses mentioned most frequently by the parents (comprising at least 10% of the total number of coded responses). The complete lists, with percentages, are given in Tables D-27 and D-28. The strengths most frequently cited by parents were:

- Gives students responsibility; encourages independence and self-reliance; helps students to mature
- Direct experience in the community, on-the-job; realistic learning experience; contact with the real world; etc.

The weaknesses most frequently cited by parents were:

- Staff performance was not up to expectations, was inconsistent; poor match or communication between staff and students; staff indifference
- Not enough attention to basic skills; poor academic counseling; poor college preparation

Clearly, the parents by and large like the school, and apparently at least some of those who feel they do not have sufficient information still have the impression that the school is an improvement over other more conventional high schools.

What Do Parents Think the School
Did for the Students?

This question can best be approached by a consideration of responses to the question about changes the parents observed in the students over the year. When asked whether they had observed changes, 87% of the parents had, and the overwhelming majority of those parents indicated that the changes observed were positive.

The positive changes described most frequently by the parents, as coded from the free responses, are shown below. (The responses listed comprise at least 10% of the total number of coded responses.)

More self-confidence, more independent, etc.
Greater interest in school; positive attitude toward learning
Happier, more relaxed, a new person, more patient
More mature, more grown up

No single negative change was mentioned by more than two parents. A complete listing of the positive and negative changes, with percentages, is given in Table D-37.

The questionnaire also asked parents to indicate what kinds of effects they expected or hoped the school would have on their sons or daughters at the time of enrollment. The categories comprising at least 10% of the total number of parents' coded responses are listed below.

Greater interest in school; motivation;
less boredom
Good education; more learning, better academic performance
Career or job experience, observation, exploration; etc.
Self-discipline; responsibility

This question is, of course, a somewhat artificial one when asked at the conclusion of the school year. Nevertheless, it does show a reasonably close correspondence between what the parents now think should have been accomplished and what they think was accomplished for their sons and daughters, and may be taken as additional evidence of parental satisfaction with the Far West School. The complete list of parents expectations, with percentages, is given in Table D-34.

What Do the Former Students Think about the EBCE Program?

The aspect of the Far West School program that former students recalled liking best was the freedom they had in EBCE to progress at their own pace and to choose their learning activities. Interpersonal skill development and career planning were considered by the majority of the group to be the areas in which the most learning had occurred. The improvement of their ability to communicate with adults and peers was the kind of learning which had proved to be particularly useful to former students in their current activities.

A total of 30 Far West School former students were interviewed by telephone. Most (80%) of them were graduates of the EBCE program. The remaining six former students indicated they had left the program voluntarily without graduating. The people interviewed had been at FWS for time periods ranging from less than 6 months to 2 years.

Results for selected questions from the telephone interview instrument are discussed in the following sections about FWS former students. The complete data from the interviews are presented in Appendix D, beginning with Table D-43.

What are the Overall Former Student Evaluations of EBCE?

Former students were asked what they liked best about the EBCE program. Responses to this open-ended question were coded into nine general areas. Categories mentioned by a least one-sixth of all former students are listed below.

- Freedom in learning, independence,
flexibility
- Job site experiences
- Different, better than high school;
escape from regular high school
- Development of self-confidence,
responsibility; self-motivation

The best liked feature of FWS, particularly in the memories of its former students, was the freedom the students had to progress at their own pace and to choose their own learning activities. Half of the comments offered by the graduates pertained to this aspect of the program. It is evident that the total group also valued other program elements central to the EBCE model--job site experiences and development of self-reliance.

When asked what they disliked most about the EBCE program, the former students mentioned concerns that were also coded into general categories. Four of these categories were mentioned by at least one-sixth of all former students. These were:

- Too much red tape, too many forms,
tests, questionnaires
- Poor administrative organization of
learning activities; too much wasted
time
- Too much permissiveness, leniency;
not enough discipline; too much
responsibility on students
- Inadequate facilities, not enough
teachers, job sites; etc.

The most frequently reported program shortcoming--too much red tape; too many forms, tests, and questionnaires--may be superficially highlighted in memories of an atmosphere where independent study and flexibility in learning activities prevailed. One-sixth of the former students commented that they disliked most the excessive amount of permissiveness and leniency in the program, suggesting that the freedom afforded by the EBCE approach may not be appropriate for all students. However, the fact that the majority of FWS former students recalled the freedom and independence in learning as the single best feature of the program is strong support for this aspect of the EBCE model for students in general.

Tables D-54 and D-55 provide the full breakdown of former students' likes and dislikes about the program.

What Did the Former Students Learn in EBCE?

Former students were provided a list of 14 learning areas and were asked how much they learned in each area--a lot, some, a little, or not at all. At least half of the graduates recalled they had learned "a lot" in eight areas, as indicated below:

- Career planning
- Ability to communicate with other
students
- Ability to communicate with adults
- Tolerating many ideas and backgrounds
of people
- Getting along with other people
- Knowing what own capabilities are and
what one likes to do
- Listening and speaking skills

Interpersonal skill development in its various aspects was clearly in the minds of graduates as a major benefit of participation in EBCE. Only one area--career planning--was cited by as many as 50% of the nongraduate former students as an area in which they had learned "a lot".

A third or more of the graduates remembered learning little or nothing in EBCE in three areas: math skills; reading skills; and specific job skills. One-third or more of the nongraduates recalled learning little or nothing at FWS in every area of learning mentioned. The remaining two-thirds indicated they had learned something in at least one area.

It is apparent that development of cognitive skills and specific job skills at FWS was subordinate to interpersonal skill development and general career planning activities. According to the former students' recollections, little or no learning was most widespread in the basic skills.

Table D-56 should be consulted for the complete delineation of former students' recollections of learning at FWS.

What Do Former Students Think EBCE Did for Them?

The great majority of the FWS graduates felt that their EBCE experiences had benefited them in terms of their current activities: 83% reported that EBCE had had a positive effect on preparation for jobs; 96% indicated it had had a positive impact on preparation for further education. This is in sharp contrast to the opinions of the nongraduates. None of them considered EBCE to have had a positive effect on either area.

Responses to the question about what kinds of things learned at FWS were considered most useful now were coded into general categories. Three of the areas were mentioned by at least one-sixth of the total group:

How to communicate with adults and peers;
Career planning, experience; finding out
likes, dislikes; and
Responsibility, confidence; how to get
things done.

In the former students' memories the outstanding benefit of time spent at FWS was learning how to communicate with adults and peers. Half of the graduates mentioned this as having proved to be especially useful. The EBCE career planning, development of self-reliance, and job seeking activities were also considered valuable. It is evident that the graduate former students felt their EBCE experiences furnished them with good preparation for life experiences beyond high school. The nongraduates negative opinions might possibly be explained by the length of time they spent in the program or their unsuitability to the EBCE approach. Tables D-57 and D-58 provide additional information relevant to this question.

What Do Former Students Wish EBCE
Could Have Done for Them?

Former students were queried on whether they recalled encountering any of nine problem areas while in EBCE. It should be noted that people invariably recall difficulties encountered in any past experience. However, widespread recollection of a difficulty encountered in the course EBCE participation may suggest an area of possible improvement. The five most frequently cited problem areas are listed below.

- Not enough resource experiences that
were of interest
- Difficulty filling out the forms
required at FWS
- Not enough feedback on how well one
was doing
- Not enough direction and guidance for
studies
- Staff members not around when one
needed to see them

The major problem in terms of the list presented to the former students was the lack of interesting resource site experiences; over half of the graduates and all of the nongraduates would have liked more exposure to out-of-school resources. The recollection of inadequate resource experiences probably is at least a partial reflection of the positive value EBCE participants placed on the resource experiences they were able to have while at FWS. Table D-59 should be consulted for the complete responses of the graduate and nongraduate former students.

Former students were asked to comment on the changes they would like to see made in the EBCE program, and their responses were coded into general categories. The

responses were widely varied, and only two areas were mentioned by as many as five former students. These were:

Keep number of students small; admit
fewer students
More structure, discipline; less
freedom

The single most frequently mentioned area of change was keeping the number of students small or admitting fewer students. One-fourth of the former students seemed to feel the EBCE approach and the learning atmosphere and student-staff relationships it fosters is dependent on keeping the program relatively small.

What Are the Former Students' Current Activities and Plans?

Educational Experience Since FWS. The majority of the former students (graduates: 58% and nongraduates: 83%) were enrolled in some type of educational program at the time they were interviewed. Virtually all of them were full-time students. When asked what they were studying or learning, the continuing students indicated a variety of subjects and skills. Two-year colleges were being attended by 70% of the graduates of FWS, while another 20% were at four-year colleges. Four of the six EBCE nongraduates had returned to a conventional high school situation after leaving FWS.

Current Educational Aspirations. Former students with educational experience were asked about the kinds of subjects or skills they would like to learn about in the next five years. Responses, which were coded into the 12 Project TALENT categories, were most frequent in the areas of humanities, law, social/behavioral sciences; business administration; and fine and performing arts.

When asked the level of formal education they planned to complete, 60% of the graduates and 80% of the nongraduates asked said they planned to get a baccalaureate or higher degree. Thus, most of the former students expressed plans to further their academic development beyond the high school level.

Work Experience Since FWS. At the time they were interviewed, about 40% of the graduate former students were employed, with similar proportions in full-time and part-time positions. An additional one-fourth of the graduates interviewed were not currently employed but had had work experience since leaving EBCE. None of the

nongraduates had had work experience since FWS. Responses about kind of work done by graduates were coded into 12 occupational areas. Seventy-five percent of the job descriptions fell into the category of general labor, community and public service.

Career and Financial Aspirations. Former students with work experience since EBCE were asked about their career aspirations. Descriptions of jobs desired in the next five years were coded into the 12 Project TALENT occupational areas. Only six of the twelve areas were of interest to the FWS graduates, and none was mentioned by as many as one-fourth of the respondents.

When asked what they would like to be making in annual income five years from now, about one-half of all former students indicated they would like to be earning \$10,000 to \$15,000, considered average by today's standard of living. Many of the rest of the group were interested in earning more, with about 15% reporting planned incomes of over \$20,000.

In summary, the majority of the EBCE former participants have continued formal schooling, at least on a part-time basis, after leaving the program. The majority have been employed in some kind of work, predominately in the area of general labor, community and public service. Many of the former students have high aspirations for their future.

A great deal more information about the present circumstances and future plans of the former students can be obtained from perusal of the Tables in Appendix D. Tables D-46 through D-48 contain information about employment and career experience and aspirations. Tables D-49 through D-52 contain information regarding educational experience and future plans.

What Do The Resource Persons Feel About EBCE and Their Role Within It?

In examining the responses of the Resource Persons (RP's) for the FWS EBCE program, several interesting generalities emerge. RP's seem to be conscientious about their task, which they see primarily in terms of imparting knowledge, particularly in the area of career awareness. They tend not to evaluate students or student work, and are very reluctant to make judgements about the program in general. Their perception of their role seems centered around the valuable experiences and contacts students are making in the "real world". The majority feel that this is the greatest strength of the program.

As discussed in Chapter 2, 50 interviews were conducted with Resource Persons for the Far West School program. The sample was chosen from a total of 106 organizations and people. Within each of four classes of resources identified by school staff, quotas were established for interviews and the samples were randomly chosen. Random replacements were interviewed when initially designated interviews could not be completed.

This section outlines the RP's responses to several questions of interest to the NIE. The results of the total questionnaire are presented in Appendix D, beginning with Table D-61.

How Did the Resource Organizations Become Involved in EBCE?

Of the 50 RP's who were interviewed, over half (56%) indicated that their organization had been contacted by EBCE personnel about participating. The second largest category of response was "other" (24%). This category included a variety of contacts, but the primary source seemed to be word of mouth through friends, clients, and relatives who were associated in some way with the EBCE program. A significant number of RP's (14%) did not know how their organization had become involved in the program. Three of 50 the respondents had been contacted by students in the EBCE program.

It is also interesting to note the categories in which there were no responses. No RP's indicated that their organizations had become involved in EBCE through contact with someone in their own or other resource organizations. It would appear that outside of formal efforts by EBCE personnel to recruit resource organiza-

tions, informal community awareness plays the major role. Within the Oakland setting, it seems that organizations which participate in the program do not influence other potential resource organizations to get involved. Table D-62 in the Appendix contains the information pertinent to this question.

What Were the Skills and Knowledge Imparted by the RP's?

Cognitive skills. More than half of the RP's interviewed indicated that students were exposed to tasks which required them to use reading and writing skills while on the resource site (64% and 54% respectively). Less than half (40%) said that students used mathematical skills in the course of their activities.

Career awareness. The RP's generally indicated that they were providing students with awareness about the careers they were exploring. It is important to note that this was not limited to the particular on-site experiences. RP's tended to discuss with students general career characteristics and the related skills and training required. More than half responded that they referred students to other people or agencies that could provide additional information. It would appear from the data that this kind of general orientation to the characteristics of careers was more frequent than teaching students to perform specific job-related tasks within the resource site organization. It seems that the RP's who participate in the FWS program take a broad view of their responsibilities in this area.

Table D-104 provides detailed information about the activities RP's and Students engage in at the Resource Sites.

How Do RP's Assess Skills Taught?

The majority of RP's (60%) either did not respond to this question or indicated that they did not evaluate the performance of students at their site. Of those who did respond, two general procedures or strategies for assessment emerged: day to day observations and interviews or discussions with students. Student interest or effort seemed to be a much more frequently used criteria than more measureable evidences of products or productivity, attendance, etc. Table D-92 provides the full breakdown of RP responses about procedures used to evaluate the performance of students.

Do RP's Fill Any Non-Instructional
Roles in the EBCE Program?

Student selection for Resource site participation. The great majority of RP's interviewed indicated that they played no part in deciding which students came to their sites for orientation experiences. Only 16% felt that they had such a role. In the case of sites which offered extended learning experiences, slightly more (24% of the total group interviewed) felt they had a part in this decision.

Only two roles emerged for RP's and Resource Organizations in response to the open-ended question: "What part do you play (in student selection)?" Seven RP's indicated that they screened students for their interests or capabilities, and three indicated that they scheduled students at their sites. Table D-85 presents the complete responses to this question.

Curriculum development. No RP's felt that they had any role in the curriculum development for the EBCE program in general.

RP's indicated that they did play some part in the development of students' learning goals for the time spent at their particular site. Six percent indicated that the goals were developed by the Resource Organization alone. A much larger percentage (46%) indicated that the goals were formulated by some combination of EBCE staff, student, and resource organization input.

Of the RP's interviewed, more said that they did not see student project plans which outlined the learning goals at their sites than said they did (50% and 38% respectively). The majority of RP's (62%) indicated that they had never seen an example of the kinds of projects or products which students complete. Of those who indicated that they had seen such projects, slightly more said they had seen projects completed at other sites than at their own site.

Tables D-72, D-73, and D-86 provide more information relevant to this area.

Policies of the career education program. With very few exceptions, RP's indicated that their roles did not include developing or helping to develop the policies of the EBCE program or Far West School. Only four RP's indicated that they or their organization had been so involved. Of these, two had served on the Advisory Board or Employer Council, one had helped to develop other

resource sites, and one had made suggestions. (See also Table D-89.)

What Are the Benefits and Disadvantages
of the EBCE Program as Perceived by RP's?

To the Resource Organization. On the whole, RP's felt that their organizations gained through participation in the EBCE program. In the sample interviewed, 62% reported an organizational benefit, and 28% indicated that their organization was not affected. Only three RP's of the 50 interviewed said that their organization had in any way suffered losses through their participation, and one of the three indicated that there had been gains as well as losses associated with their involvement. RP's were also asked to elaborate on the reasons behind their perception of benefits and disadvantages to their organization, and these free responses were coded into general categories. The main trend of effects noted by the RP's was a dual-sided community awareness. On the one hand, a community service was performed by the resource organizations. They became more visible and a public relations function was accomplished. On the other hand, the resource organizations gained knowledge about the community. They received input in terms of student opinions and problems of the community outside their own specific area. Table D-84 provides the full breakdown of responses to this question.

By and large, RP's noted no impact on the quality or quantity of work performed by the resource organization employees due to participation in the program (82% and 74% respectively). When changes in quality or quantity of work were cited, these changes were more often positive than negative. Six RP's indicated that the quantity of work performed by employees of their organization had increased, while four noted a decrease. Five RP's said that the quality of work had gone up, and only one indicated that the quality had gone down. No unanticipated costs were accrued because of participation, either personal or organizational. Tables D-67, D-79, and D-80 can be consulted for the full breakdown of RP responses in this area.

To the students. Nearly all of the RP's interviewed felt that there were some things which students could learn in the EBCE setting which could not be learned as easily in a traditional high school environment. Of the 50 RP's sampled, 48 (or 96%) believed this to be true. When asked as to the nature of these "things" which could be more easily learned, over half of the responses dealt

with the real, practical experiences which students could have--i.e., contact with the "real world". Two other kinds of learning were also mentioned with some frequency: specific job skills and interpersonal skills. The breakdown of responses given in this area are shown in Table D-90.

EBCE programmatic effect on students was explored through two additional avenues with RP's. They were asked about perceived changes in the students they worked with, and also about their perceptions concerning the effectiveness of the EBCE approach.

RP's were asked about changes that they might have seen in students in the areas of: self-confidence; ability to ask questions; ability to respond to questions or directions; ability to take the initiative; and reliability. In every category of change, 40% or more of the RP's felt that they could not form a judgement, because of an insufficient length of time spent with the students. The general pattern of responses of those who did feel they could make such a judgement was for about 45% (approximately 20 RP's) to indicate that students had changed for the better, and about 10% (approximately 5 RP's) to indicate that no apparent change had occurred. In only one case did an RP note that students had changed for the worse. One RP felt that his students had grown slightly less reliable. Table D-105 provides the complete information regarding perceived changes.

In terms of perceived program effectiveness, it is perhaps most interesting to note that only 27 of the 50 RP's interviewed (54%) felt they were in a position to respond to the question: "Based on your understanding of the Career Education program, and on the students and staff you have met, how effective do you feel the program is?" Of the 27 who did respond, eleven (22%) felt the program was very effective, eight (16%) felt it was somewhat effective, three (6%) felt it was somewhat ineffective, and five (10%) felt it was very ineffective.

The responses in any given category of explanation for the RP's perception of effectiveness were too few to be really meaningful. About as many negative as positive comments were offered, but they were few and varied on both sides. Positive comments did seem to center around motivation of students and the alternative nature of the program (nine RP's), and the RP's who commented negatively cited poor administration and organization and lack of communication between LC's and students most frequently (five RP's). Table D-91 contains more detailed information on this question.

Are EBCE Students Prospective Employees
of Resource Organizations?

Of the RP's who responded in this area, three indicated that former EBCE students had been hired as regular members of their organizations. Thirty-four (or 68% of the total group) felt that they would hire former students, depending on the individual student and the organizational need. Six (or 12%) indicated that they would not. (See also Table D-82.)

Can Present EBCE Resources Expand
their Participation?

Almost half (46%) of the RP's felt that their organization would continue participation at a higher level--taking more students. Thirty-eight percent indicated that the level of their participation would remain about the same. Only two RP's said that their organization would decrease the number of students it dealt with if involvement was continued. Four RP's said that their organizations would not continue the program at all.

RP's indicated a number of factors which limited increased participation. The most frequently mentioned difficulty was lack of time to deal with the students. Lack of personnel and disruption of ongoing work were also frequently mentioned. Tables D-97 and D-98 can be referred to for additional information.

What Relationships Do Resource Organizations
Have with Other Secondary School Projects?

Over half of the RP's (58%) indicated that their organizations were involved in educational programs that dealt with high school students in addition to EBCE. It would appear that institutions and organizations which support other educational endeavors might be likely prospects for participation in an EBCE program. The kinds of programs they participated in, in addition to EBCE, were predominantly cooperative work or work orientation programs and lectures or presentations in schools. Table D-103 details the responses in this area.

CHAPTER 5

COMMUNITY EXPERIENCES FOR CAREER EDUCATION

The Experience-Based Career Education (EBCE) program developed by the Northwest Regional Educational Laboratory (NWREL) was called Community Experiences for Career Education or (CE)₂. Operated as a private, nonprofit corporation under subcontract with NWREL, (CE)₂ was located in Tigard, Oregon. The Learning Center of (CE)₂ was located in a medical and professional building in Tigard, but the "classroom" of the (CE)₂ students encompassed activities not only in this building but in community resources throughout Tigard, neighboring Portland (Oregon's largest city), and other nearby communities.

The description of the EBCE school procedures that follows is based on a number of sources of information. Foremost among these are the report of the ethnographic study of (CE)₂ (Volume IV), materials and information produced by the NWREL, and what was learned or observed by ETS staff during visits to the school. The description is necessarily a summary, intended only to give enough knowledge of the program organization, processes, and materials sufficient to understand the specialized (CE)₂ terminology used in this report. Because of the briefness of this description and because of the individualized or personalized nature of the program, the summary must be considered only as an overview of what was being evaluated in the study. The description does include some comments based on information gained in components of the evaluation study, where such comments seem likely to aid in understanding what went on at the school. This evaluative kind of information is presented in more detail in the ethnographic report (itself a kind of thorough description of the school) or in later sections of this chapter. A more complete and informative description of the school procedures and materials as presently structured can be obtained from material available from the Northwest Laboratory.

What Were the Procedures Used at (CE)₂?

The educational program at (CE)₂ was designed to integrate the learning of Basic Skills, Life Skills, and Career Development, using experiences in the community as a primary learning vehicle. Students were expected to spend approximately one-half of their time at various employer and community sites. The rest of their time was spent at the Learning Center in Tigard. This division of time was somewhat flexible, depending on the student, his workload, the availability of community resources, etc.

Several kinds of activities formed the structure for the learning experiences offered at (CE)₂. These can be identified as: projects; explorations; learning levels; competencies; journals; employer seminars; staff-student interactions; and alternative study options.

Projects

Students were required to prepare ten projects within the school year--two each in the five areas (CE)₂ had identified as "Life Skills" (Critical Thinking, Science, Personal-Social Development, Functional Citizenship, and Creative Development). These projects were generally completed at community sites, during learning level experiences (described below). The projects were developed around activities which occurred at the experience sites. Of the two projects in each Life Skills area, one was a packaged, pre-prepared project, and one was an individualized project.

One of the basic purposes behind the process of project completion was to teach students how to learn. This purpose was facilitated in the students' negotiations of the individualized projects and the negotiation of changes in the packaged projects. The (CE)₂ staff members involved in these negotiations were the Learning Managers (LM's), who were the individuals with the major responsibility for coordinating student activities. Ideally, students and their LM's worked as partners to create personalized projects, geared to the individual abilities and interests of each student. In actual practice, the balance of LM/student input varied, as might be expected. Some students were more willing or able to contribute to the negotiation process than others.

The projects were designed according to a standard format. The activities to be performed, the resources to be used, and the resulting products were all specified in the course of the individual student-LM project negotiation. Although centered around a particular Life Skills Area, the projects were also intended to incorporate tasks relevant to the Basic Skills and Career Development components of the (CE)₂ learning experience.

Explorations

"Exploration" was the designation for one level of the community site experience. These learning experiences lasted only a few days, and gave students a brief overview of an occupation and employer site. Each student participated in a minimum of five explorations a year.

"Exploration Packages" were used as a guide for these experiences. These packets contained suggested questions for the student to ask the Employer Instructor (EI) about the work at the site and about the career field being explored. They also contained materials which the students completed and which constituted part of the Basic Skills curriculum.

Students did not ordinarily work on projects in the course of the exploration phase, though there were certain project activities which could be accomplished. One problem encountered by students in the explorations was a lack of information about the program and its purposes on the part of some EI's. When students encountered such an EI, their experiences tended to be limited.

Learning Levels

Learning levels were more extensive experiences at the employer and community sites. They lasted between three weeks and three months. Sites were chosen on the basis of their compatibility with a student's interests and abilities. In contrast to the explorations, learning levels generally involved hands-on student involvement in the activities of the site. During the time spent at a particular site, a record was kept of the specific job skills acquired by the student.

During the first few weeks at a given employer site, students generally spent the time getting acquainted and learning about some of the job skills and the career(s) exemplified at the site. Since the learning level was the primary medium in which students worked on projects,

much of the time on site was devoted to project activities once a project had been developed for the student to work on. Student exposure to and informal learning about the occupational culture or ambience exhibited at a particular site tended to continue throughout the experience. However, at times, students felt a conflict between what they felt to be meaningful activities at the employer site versus the necessity of completing certain projects and thus meeting program zone requirements.

Competencies

Thirteen survival skill areas for adulthood were identified by (CE)₂, and all students were required to demonstrate their ability in defined skills within these areas. The skills to be performed were in the areas of: credit, checking account, insurance, income tax, budgeting, physical health, emergencies, electoral process, government, individual rights, public agencies, employment, and automobile use and maintenance.

Competency certification was carried out through contact with individuals and agencies in the community with experience in the area to be certified. These community resources certified student ability to perform specific activities, such as balancing a checkbook or passing a driving test. Some of the activities were real, and some were simulations. Students sometimes doubted their future ability to accomplish the "real thing" even after their competency had been certified in a simulated experience.

Journals

Journals were weekly two-page written assignments. The student wrote these journal entries to a correspondent who was a (CE)₂ staff member. What was written was kept confidential between them. Topics for journal entries were left open to the students, but ideas suggested included discussions of projects, the program, the work sites, etc. In addition to providing a way to record activities, the journal was intended to provide practice for students in written communication.

Employer Seminars

Employer Seminars were one of the few activities in which it was likely that most of the student body would participate together. These meetings were scheduled

periodically, and involved various community members coming to the Learning Center to discuss topics relevant to Career Development. The meetings were presented in variable format. Sometimes they were held as panel discussions, sometimes as small group discussions, sometimes as simulation experiences, etc. Occasionally, Employer Seminars were followed up with activities in the community.

Staff-Student Interactions

Staff and student interactions, both formal and informal, constituted another important process at (CE)₂. The most important scheduled meetings were between the students and their Learning Managers. These meetings were held on a weekly basis, and the primary topics of discussion were project activities and "personal things". Students also met with other staff members, though not on a regularly scheduled basis. Occasionally, students and staff met as a complete body to discuss program-related matters.

Informal interactions between staff and students and among the students were an important facet of life at (CE)₂. Students and staff often stopped to chat informally about school or subjects of mutual interest.

Alternative Study Options

Several other learning options existed which the students could make use of. Individualized Basic Skills materials and tutors were available at the Learning Center. Students could attend Tigard High School or local community college classes. A "Skill Building Level" of employer site experiences could provide extensive training in particular job skills. (No students were using this option during the 1974-75 school year.) "Special Placements" were also available, through which students could research topics of interest in the community, without focusing on a particular career.

What Kinds of Students Enrolled in This School?

The answer to this question is based almost entirely on information provided in the evaluation report prepared by the Northwest Regional Educational Laboratory (NWREL) staff (Owens, Haenn, and Fehrenbacher). The schedule for the external evaluation study did not permit the indepen-

dent collection of student and family background data, at least some of which was obtained by the project staff at the time of student recruitment and selection in the spring of 1974. While ETS might have collected additional information, doing so after the initiation of the external evaluation would undoubtedly have resulted in some duplication of effort on the part of the students involved; it would also have been unusually difficult to obtain from control group students who had not been admitted to the school. The source report from which the data presented here were taken includes more detail. That report should be consulted if additional information is wanted.

Sixty-two students were enrolled in the (CE)₂ School at the end of the orientation period in the fall of 1974. Of these, 44 (71%) were students starting the first year in the school, and 18 (29%) were students returning for the second year in the program. Descriptive data for the students in the school, and information about parents' education and occupations are presented in Tables 5-1 and 5-2.

It is evident that the student body at (CE)₂ is virtually all white, and about evenly divided by sex and grade. (As noted later, the data in this report are based entirely on the first year students, and this group is composed predominantly of 11th grade students.) More than half the students have at least one parent who has had some college education, and the fathers of nearly half the students are in managerial-administrative occupations. Although precise figures on the percent of students whose mothers are housewives is not available, it seems reasonable to assume that nearly half of the mothers are not working.

On the basis of the data available, and considering that the feeder school from which the (CE)₂ students came serves a suburban area, the families represented in the (CE)₂ program might be described as predominantly middle class in terms of socioeconomic status. In any case, the student body is probably relatively homogeneous with respect to socioeconomic status, although there are other data available that suggest that the students themselves may not accept all of the values and aspirations that are usually associated with this socioeconomic level.

The students in (CE)₂ were asked at the time of application to rank seven possible reasons for wanting to be in (CE)₂ in order of importance to them. The averages of the ranks for first year students, randomly selected experimentals and pre-selected, and second year students are presented in Table 5-3.

TABLE 5-1

DESCRIPTIVE DATA FOR STUDENTS ENROLLED IN (CE)₂
1974-75

(All figures are percents)

	First Year <u>(n=44)</u>	Second Year <u>(n=18)</u>	Total <u>(n=62)</u>
Sex			
Male	48	61	52
Female	52	39	48
Ethnic Group			
White	100	94	98
Oriental	--	6	2
Grade			
11th	68	--	48
12th	32	100	52

TABLE 5-2
EDUCATIONAL AND OCCUPATIONAL INFORMATION FOR
PARENTS OF STUDENTS IN (CE)₂
1974-75

	<u>First Year</u>		<u>Second Year</u>		<u>Total</u>	
	<u>Father</u>	<u>Mother</u>	<u>Father</u>	<u>Mother</u>	<u>Father</u>	<u>Mother</u>
Education						
Less than H.S. Diploma	12	7	20	20	13	10
H.S. Diploma	26	49	0	30	21	45
Some College	37	28	40	10	38	24
College Graduate	14	5	20	0	15	4
Graduate Training or Degree	2	9	0	0	2	8
Don't Know	9	2	20	40	11	9
Occupation						
Executive	9	7	0	0	7	5
Manager	21	2	7	0	18	2
Administrator	16	9	40	12	24	10
Clerical	14	28	13	24	15	27
Skilled	14	5	33	6	20	5
Semi-Skilled and Unskilled	16	5	7	6	15	5
Housewife or Don't Know	9	44	0	52	2	46

NOTE: All figures are percents; the base number of cases varied for the two variables, and for the two parents within a variable.

TABLE 5-3

AVERAGE RANKING OF REASONS FOR APPLYING TO (CE)₂

	<u>First Year</u>	<u>Second Year</u>	<u>Total</u>
To learn about careers	1	1	1
To choose personal learning style	2-3	2	3
To prepare for a job	2-3	3	2
To have more freedom	4-5	4	4-5
Didn't like regular school	4-5	5-6	4-5
Bored with regular school	5-6	5-6	6
(CE) ₂ is easier	7	7	7

Although there is no information on the range of rankings within the three groups, the students in the different groups probably were fairly consistent in the extent to which their rankings were consistent with the identified purposes and procedures of (CE)₂. It is possible, of course, that the students, having learned about (CE)₂, knew they wanted to be accepted, and knew how to complete an application blank in a way that would maximize acceptance.

What School Procedures Did the Students Find Useful in Learning About Careers?

A review of the in-depth interview schedule as described in Chapter 2 and presented in Appendix B will indicate that a great deal of detailed information about learning processes was obtained. This abundance of detail is, of course, both a strength and a weakness of the use of interviews. This is particularly true when, as in this instance, there was great reliance placed on the use of free response questions directed to the personalized educational experiences of each respondent. After the responses were obtained, it was essential to develop coding systems for the responses that would allow for the organization and reduction of the information to a manageable form, but would also retain with accuracy as much of the sense of the original responses as possible. The very limited time available for pretesting the interview schedule meant that the task of defining the limited choice categories and rating scales could not be done prior to data collection. It had to be carried out after the fact, a less desirable alternative, in as much as interviewer probing directed by preconstructed scales might have produced more relevant information.

In providing information to answer the series of questions that follow, tabular presentations of data are used to identify what appear to be the most important conclusions to be derived from the data. All of the data from which these abbreviated tables were taken are presented in Appendix E for the use of those readers who may wish to review the detail. Each table in the body of the report is referenced to the more detailed table in Appendix E by number.

Reviewing very briefly the information on student selection and sampling in Chapter 2, interview data were available for three groups of students who had applied for admission to (CE)₂ in the spring of 1974. The group identified as "experimental" in the following sections is a random sub-sample of a larger group of 31 students

chosen randomly from the applicant pool by the NWREL/(CE)₂ staff. The second group, identified as "control" below, is composed of the applicants who were not admitted to the school on the basis of the random selection by the NWREL staff. The third group, labeled "other non-(CE)₂" is composed of those students who were offered admission to the school at the time of random selection, but for various reasons later decided to return to Tigard High School.

How Useful Were the Employer Site
Experiences Arranged by the EBCE Schools?

This question can, of course, be answered only for students enrolled in (CE)₂; i.e., it is not a meaningful question for control group or other non-(CE)₂ students. As explained above, however, these program-generated experiences represent the heart of the EBCE schools, and are the feature that most distinguishes these schools from the conventional high schools. In general terms, this question can be answered for (CE)₂ students as follows:

- Sixty-five percent of the students found the extended learning level experiences at at least one site useful in learning about the first choice career, but only about 30% found such experiences useful in learning about a second career of interest.
- An additional quarter of the students found the shorter exploration activities at at least one site useful for the first choice career, and a little more than a third found them useful in learning about the second choice career.
- Altogether, 90% of the students found some resource site experience to be useful in learning about the first career of interest, and 65% found them to be useful for the second career of interest.

More precise answers may be obtained using the data in Table 5-4 or by reference to Table E-1. It should be noted that these responses were obtained only for students in the first year of the (CE)₂ program. Information obtained from other EBCE schools where data were available for both first and second year students suggest that some first year students may not have had sufficient time to learn how to make the best use of the opportunities provided through the EBCE school.

TABLE 5-4

LEVELS AND NUMBERS OF EBCE SITE EXPERIENCES
 STATED AS USEFUL FOR CURRENT CAREER CHOICES
 (All figures are percents)

	<u>First Choice</u>	<u>Second Choice</u>
Learning Level at		
One site	60	29
Two sites	5	0
Exploration Level at		
One site	15	24
Two sites	10	12
No program generated experiences	10	35
Total Number of Responses	20	17*

*Three of the students had only one career of interest

NOTE: These data were derived from Table E-1.

How Useful Were the Learning Center Activities?

In general terms, the answer to the question is:

- Very few of the EBCE students cited any Learning Center activities that were useful in learning about the first choice career, and none of them felt that such activity was useful for their second choice career.

It should be remembered that the question of usefulness of learning center activities was oriented to learning about specific careers of interest which the students cited during the interview. Students may well have participated in learning center activities that they believed useful for other career related purposes.

A more precise answer to this question may be developed from the data in Table 5-5.

Are Non-School Activities Useful in Learning About Careers?

- A majority of all the students in this study have found some non-school activities useful in learning about careers of interest.

More precise answers to this question may be derived from Table 5-6. It should be particularly noted that the experience site activities of the (CE)₂ students are part of their school program, and are not included here. For these students, the activities named in the interview are in addition to the resource site activities.

TABLE 5-5

LEARNING CENTER ACTIVITIES CITED AS
USEFUL FOR CURRENT CAREER CHOICES
(All figures are percents)

	<u>Experimental</u>		<u>Other non-(CE)²</u>	
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
Two or more activities with staff member by name	--	--	13	--
One activity with staff member by name	--	--	13	--
One activity cited	5	--	38	60
Talk with teacher or learning center staff member	5	--	--	--
Outside speaker or class prior to EBCE application	5	--	25	--
Other or uncodable	--	--	--	--
No activity cited	85	100	13	40
Number of Respondents	20	17	8	5

NOTE: These data are derived from Table E-2.

TABLE 5-6

NON-SCHOOL ACTIVITIES CITED AS USEFUL
FOR CURRENT CAREER CHOICES
(All figures are percents)

	<u>Experimental</u>	
	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>
One or two locations with adult involvement for extended period of time	15	12
Leisure time activity or making something at home	10	12
Talking with family or other adult	30	12
Job	--	6
Other or uncodable	--	6
No activities cited	45	53
Number of Respondents	20	17

Note: These data are derived from Table E-3.

How Useful is Reading in
Learning About Careers?

- A great majority of all the students in the study identified some reading that had been useful in learning about careers, and reading was mentioned more often with respect to first choice careers.

Although the differences between EBCE and other students are not statistically significant, larger percentages of the latter group were able to identify by name material they had read. Information on which the several answers are based is given in Table 5-7.

Do the Experiences and Activities
Result in Useful Products or Specific
Accomplishments?

- About half of the EBCE students mentioned some particular program or school-related product or outcome useful in learning about careers of interest.

There are no statistically significant differences between the first year experimental and control group students, although the former mention products or written reports relatively more often than the latter.

The data in Table 5-8 provide the basis for possible more detailed answers to the question posed.

TABLE 5-7

READING ACTIVITIES CITED AS USEFUL
FOR CURRENT CAREER CHOICES
(All figures are percents)

	<u>Experimental</u>		<u>Other non-(CE)₂</u>	
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
One or two books with titles cited with or without other reading	10	12	38	20
Magazines, pamphlets, etc., only	40	35	--	20
Reading cited with no detail	15	6	38	20
Other or uncodable	5	--	--	20
No reading cited	30	47	25	20
Number of respondents	20	17	8	5

Note: These data are derived from Table E-4.

TABLE 5-8

TYPE OF STUDENT ACTIVITIES AND PRODUCTS
RELATED TO SELECTION OF CURRENT CAREER CHOICES
(All figures are percents)

<u>Coding Categories</u>	<u>Experimental</u>	
	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>
Individual or group prepared product resulting from activity	5	12
Term papers or other written reports required by school	30	12
Specific learning or skill improvement	10	6
Specific statement of new or revised plans	5	--
Other or uncodable	--	6
No outcomes or accomplishments	50	65
Total number of responses	20	17

Note: These data are derived from Appendix Table E-5.

Are the Student Experiences Oriented Toward Career Choice?

- Sixty-five percent of the EBCE students and 55% of the control group appear to have some career focus with some useful experiences relevant to this focus.

If the data in Table 5-9 are considered only from the point of view of whether students cite experiences they found useful in the overall context of career planning without regard to career focus, the percentages are again about equal for the experimental and control groups, and none of the differences are statistically significant. About 10% of the students in these groups appear to have no career focus, no useful experiences, or appear to be vague and confused about the whole matter of careers.

What Did the Students Think About the School?

All the students in the study, including the control group students, were asked if they would apply for admission to (CE)₂ if they were given the choice again. The response to the question posed above seems quite clear.

- All the students who had attended (CE)₂ said they would reapply; however, only 22% of the control students said they would reapply.

This data is summarized in Table E-10.

When asked to give reasons for their responses about reapplication, 45% of the (CE)₂ students mentioned things related to the (CE)₂ staff or cited the relationships between the staff and the students. The same percentage also mentioned the opportunities to explore or learn about careers or jobs as a reason for reapplication. Other frequently cited reasons were: greater independence (35%) and lack of rigid structure or freedom to learn what the student wants to (20%).

When the reasons given were classified as being positive or negative in the feelings expressed about

TABLE 5-9

PERCENTAGES OF STUDENTS CLASSIFIED BY CAREER FOCUS
AND RELATED EXPERIENCES

	<u>Experi- mental</u>	<u>Control</u>	<u>Other non-(CE)</u>
Two careers of interest, experiences related to one experiences related to both	30 20	22 11	-- 38
One career interest, related experience	15	22	26
Interest without career focus, related experience	5	11	--
Potential career interest, no experience	20	22	25
No career or interest focus, useful experiences	--	--	13
No focus, no useful experiences, or confused about careers	10	11	--
Number of Respondents	20	9	8

Note: These data are derived from Table E-6.

TABLE 5-10

PERCENTAGES OF STUDENTS WHO WOULD AND WOULD NOT
REAPPLY FOR ADMISSION TO THE EBCE SCHOOL

	<u>Experi- mental</u>	<u>Control</u>	<u>Other non-(CE)₂</u>
Would reapply	100	22	43
Would not reapply	--	67	43
Not sure	--	11	14
Number of Respondents	20	9	7

(CE)₂, 49 of the reasons were judged to be positive, and only two were considered to be negative. Some of the reasons for reapplication were stated in terms of the conventional school program in which the students had previously been enrolled. It is clear, however, that the reasons generally indicated a liking for (CE)₂ rather than a dislike of the conventional school, since only 14 reasons were classified as negative about the conventional school as compared with the 49 pro-EBCE reasons.

This summary of the positive and negative opinions about school programs is based on data presented in Table E-7.

Are the Students Different Because They Attended the (CE)₂ School?

The information on student effects, other than basic skills, was collected in the context of the interview oriented toward career choice, as discussed in Chapter 2. Prior to discussion of the ways in which the students differ as a result of attendance at the (CE)₂ school, therefore, it seems appropriate to summarize briefly the information obtained about students' career interests.

Considering both first and second career choices, the 20 (CE)₂ students were interested in a total of 38 different careers or jobs; the nine control group students were interested in 18 careers; and the eight other non-(CE)₂ students were interested in 12 different careers or jobs. The particular careers of interest are detailed in Table E-8, which shows the percentages of students in each group who picked particular careers.

In order to make some generalization about the kinds of career/jobs these students were interested in, it was necessary to group the choices in coarser categories than were used for obtaining career requirements scores. Career groups defined in the Project TALENT five-year follow-up study were used for this purpose, because they were based on longitudinal data for high school students, and ordered careers approximately in terms of amount of education and training required. The most popular career groups for the first choice careers of the experimental and control and other non-(CE)₂ groups combined were: Mechanics and Industrial Trades (21%), Teaching and

Social Sciences (18%), General Labor, Community and Public Service (15%), Clerical Jobs (12%). Although there are not enough students to permit a statistical test of the differences between the experimental and control group choices, inspection of the data indicate that there are probably no appreciable differences.

Students tended to choose careers that require only limited training or education beyond high school. Those careers requiring extensive formal education, with the exception of teaching careers, were not chosen by large percentages of students.

The popular careers for the male students in both the experimental and control groups were in the areas of Mechanics and Industrial Trades and of General Labor, Community and Public Service. The popular careers for females in both the experimental and control groups were Teaching and Secretarial-Clerical Jobs. There are no apparent differences between the experimental and control groups in the extent to which females express interest in careers traditionally seen as those most often chosen by men.

The data used as the basis for these general conclusions about types of careers of interest are presented in Table E-9.

Have the Students Considered More Than One Career?

- Most of the (CE)₂ students have two career interests.

There is no statistically significant difference between the experimental and control group students in the extent to which they express interest in only one career. The data on numbers of careers of interest are presented in Table 5-11.

What Factors Do Students Consider When They Choose Between Careers?

The students in both the EBCE and conventional school programs named a variety of different factors they would consider in choosing between their two careers of interest. On the average, the students gave three or four reasons, with no marked difference between groups in numbers of factors to be considered. The student responses

TABLE 5-11
PERCENTAGES OF STUDENTS STATING
PREFERENCES BETWEEN CAREERS

	<u>Experi- mental</u>	<u>Control</u>	<u>Other non-(CE)₂</u>
Two Careers of Interest			
Prefer one over another	65	33	38
Equal in interest	15	56	25
Don't Know	5	11	--
One career of interest	15	--	38
Number of Respondents	20	9	8

were coded using twenty different categories; the analyses of these coded responses are presented in considerable detail in Table E-10. Recognizing the difficulty in providing a relatively simple answer to such a complicated question, a general answer is:

- There are no appreciable differences among the three groups with respect to the classes of considerations mentioned in choosing between careers.
- While it is difficult to interpret the results for specific considerations, because of the small numbers of control group students, the following seem to have been mentioned more often by EBCE students: attitude toward academic preparation required and amount of supervision required in the career or job.

What Do Students Say About Their General Career Interests and Knowledge?

- While there are no appreciable differences between (CE)₂ students and control or other non-(CE)₂ students in reported areas of interest or high interest and knowledge areas, the (CE)₂ students tend to report "No Knowledge" in fewer areas at a level that approached statistical significance.

Detailed data on self-reported interest and knowledge are given in Tables E-11, E-12, and E-13.

Of course, self-report of knowledge about a career area does not mean that in fact the student is knowledgeable about it. Information about actual knowledge of requirements for careers of interest was obtained from a separate question. These self-ratings may, however, be indicative of the self-confidence a student has in the area of career knowledge, which is related to one of the EBCE goals. Additionally, if students say they have no interest in a number of areas, it may be indicative of a premature restriction of the number of options open for career choice. Thus, the information summarized above suggests that the EBCE students do have more confidence as they approach career decision making.

Do Students Learn About the Requirements for Careers?

There is quite a range in the knowledge of career requirements for these students. For this reason, and because of the difficulty of assessing such knowledge when students choose such a variety of careers, the question can be answered in only the most general terms, and any answer must be considered to be quite tentative. With these cautions in mind it is possible to say that:

- About half of the EBCE students know 65% or more of the characteristics that are necessary for entry in the careers of interest to them.
- They are not as well informed about the characteristics that are not necessary.

The control group students, on the average, obtained slightly higher scores on knowledge of the necessary career requirements. This can be attributed primarily to the fact that the distribution of their scores was somewhat bi-modal; i.e., a relatively large number obtained quite high scores, and a second relatively large number were grouped around 50% correct. If both the control and other non-(CE)₂ students are considered, there is a rather strong indication that they are somewhat better informed about the necessary requirements for the careers of interest to them than are the (CE)₂ students. The reverse is true, however, for knowledge of factors that are not necessary for career entry and success. The small numbers of students for whom data are available do not make it possible to conclude whether the differences are statistically significant.

Data relevant to these statements are presented graphically in Figure 5-1, and are presented in much more detail in Table E-14.

Do Students Choose Careers That Are Consistent With Their Knowledge of Themselves?

As indicated in Chapter 2, this question can be answered in only the most tentative fashion with the data available. It is a difficult, and perhaps even impossible question to answer at best. Under the conditions operating for this study, the question was approached by

Community Experiences in Career Education

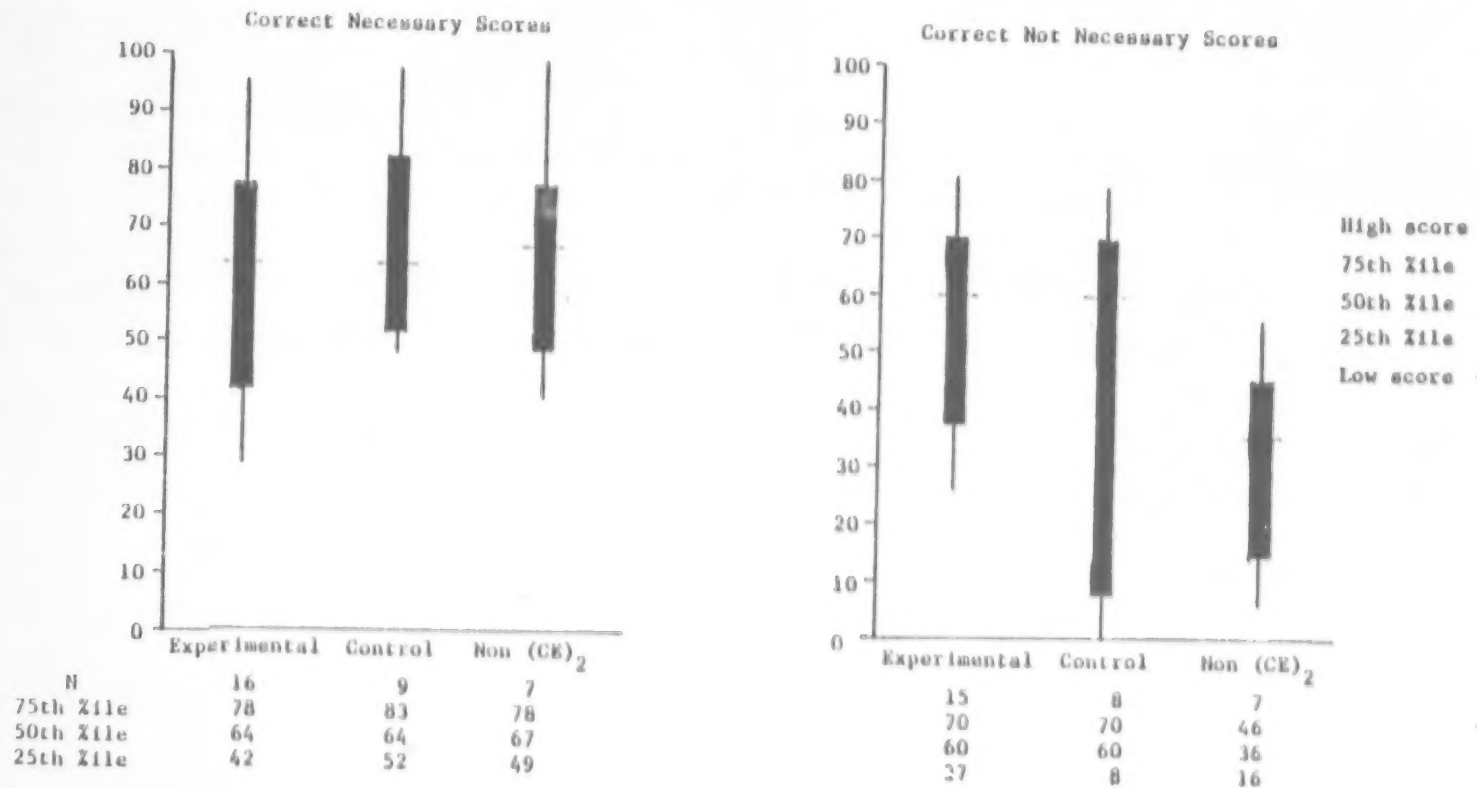


Figure 5-1. Distribution of Career Requirements Scores

simply counting the personal characteristics on which the student rated himself or herself in a way that was consistent with the self-perception of the requirements for the first career of interest. The distributions of these consistency indicators are shown in Tables E-15 and E-16. Generally:

- The EBCE students are not significantly more consistent than the control group students, although the average scores for the control group students are slightly higher than for the EBCE students in terms of Necessary characteristics, and slightly lower for characteristics that are Not Necessary.

What Personal Characteristics Do Students
Think Have Been Changed During the School Year?

Students might perceive changes in themselves in an almost unlimited number of characteristics as a result of various kinds of experiences. As noted in Chapter 2, students were asked to mark 41 personal characteristics where they felt they had changed in either a positive or negative direction, leaving blank those on which they thought they had not changed. Using these data, the question may be answered as follows:

- On the average, EBCE students thought they had changed in a positive direction on 51% of the characteristics and in a negative direction on about seven percent of them.
- There was very little difference between the experimental and control group students with respect to the number of characteristics affected.

The characteristics on which 75% or more of the (CE)₂ students thought they had changed positively were: reasoning, friendliness, self-discipline, and ability to take direction. The differences between the percentages of students in the experimental and control groups who thought they had changed on these characteristics are not statistically significant. Further, the percentages for the (CE)₂ and other non-(CE)₂ are virtually the same. Since the psychometric properties of these ratings are unknown, no conclusions should be drawn about the relative effectiveness of the (CE)₂ and conventional programs in affecting these personal characteristics.

Areas of personal development on which fewer than 30% of the (CE)₂ students thought they had changed positively, and up to 25% thought they had changed negatively were in artistic, musical, and dramatic ability/creativity. Again, however, there were no important differences between the (CE)₂ students and either the control or other non-(CE)₂ groups.

Somewhat more detail relevant to these areas of perceived change is given in Table E-17.

How Do the EBCE Students Feel About Career Planning?

The Career Planning Attitude ratings, defined in Appendix B, might best be described as the interviewer's perception about a combined student trait of sense of control in the choice of a career or job and willingness to be open to new possibilities for career and job selection and future changes. These ratings were made by the interviewer on the basis of what the student said during the entire interview.

The distributions of the ratings are presented graphically in Figure 5-2, and in more detail in Table E-18. On the basis of this information, the answer to the question is:

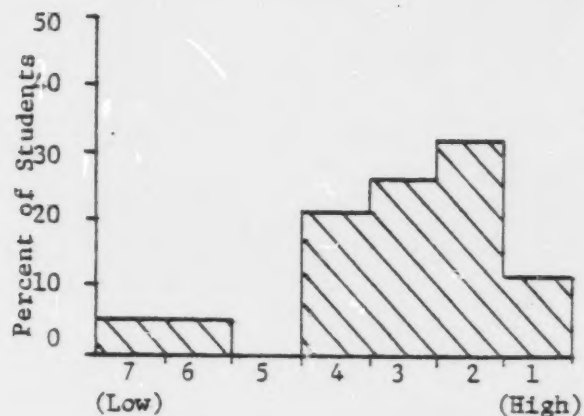
- About 70% of the (CE)₂ students are positive in their attitudes toward career planning with feelings that they can have some control over their choices of careers and can consider a variety of careers.

The differences between the experimental and control group students are not statistically significant.

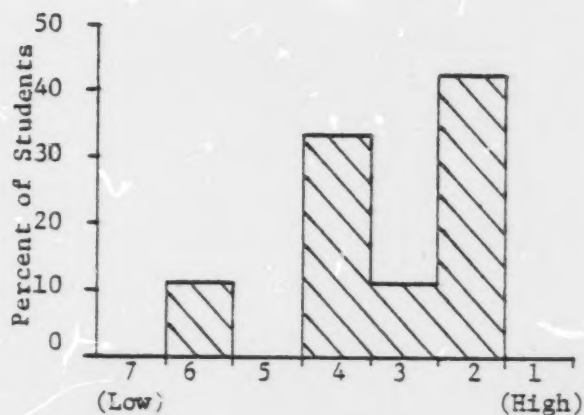
Does the EBCE School Experience Have an Effect on the Students' Basic Skills?

This question can be answered in terms of three kinds of skills: Oral Communication, Reading, and Arithmetic.

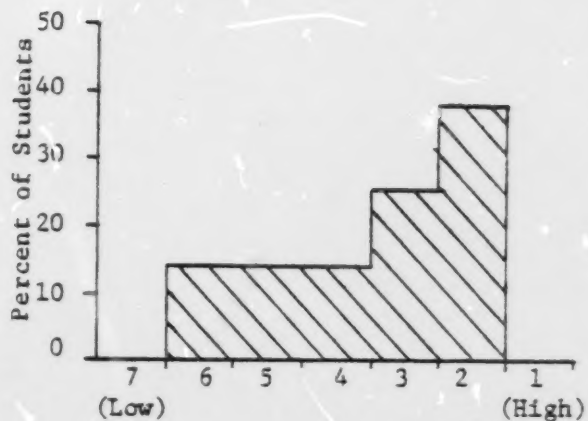
Oral Communication Skills. The interviewers rated the students on this skill using a scale defined in Appendix B. Analyses of these ratings by groups are presented graphically in Figure 5-3, and in somewhat more detail in Table E-19. This information indicates that the answer to the question is:



Experimental (N = 19)

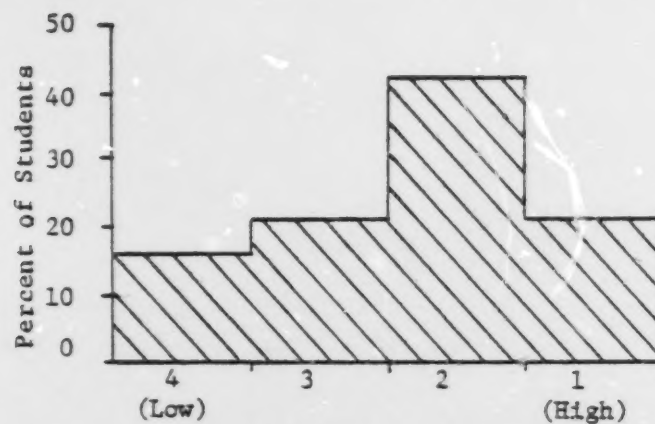


Control (N = 9)

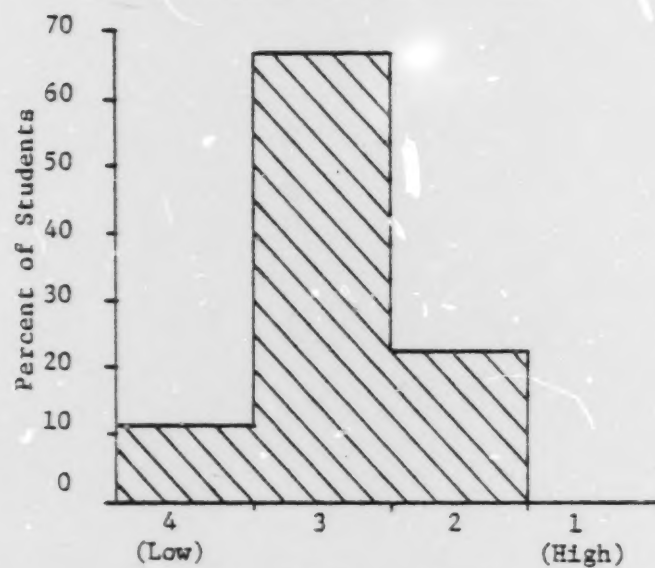


Other Non(CE)₂ Students (N = 8)

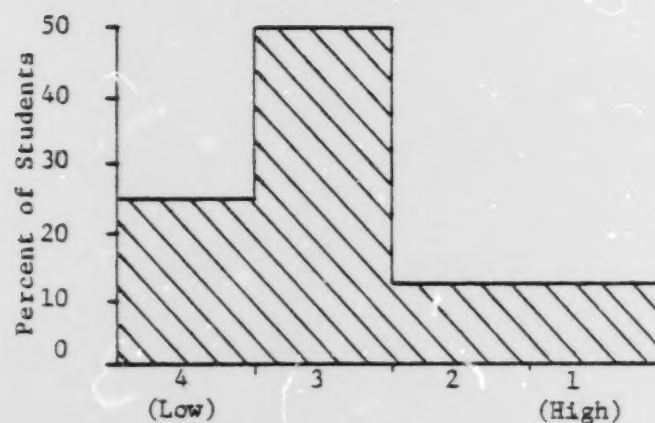
Figure 5-2. Career Planning Attitude Ratings



Experimental (N = 19)



Control (N = 9)



Other Non(CE)₂ Students (N = 8)

Figure 5-3. Oral Communications Ratings

- A little more than 60% of the (CE)₂ students were able to respond orally to complex questions with answers that were generally to the point and fairly brief.

- Only 22% of the control group students were judged to be able to give answers of similar quality. The difference between the control and the experimental group students is significant.

One caution should be added in consideration of these results. Assessment of oral communication skills is probably particularly confounded with understanding and knowledge of the content to be communicated. Since career choice and planning were the topics around which the interview was constructed, this may have had an effect on the judgements of oral communication skills made on the basis of this interview. If so, these ratings may be biased in favor of the (CE)₂ students simply by the content of the material being discussed.

Reading and arithmetic skills. These skills were measured by three scores on the Comprehensive Tests of Basic Skills (CTBS). The data were provided to ETS by the (CE)₂ evaluation staff at Northwest Laboratory. Data were available for all of the experimental group students. However, scores for so few of the control and other non-(CE)₂ students were obtained that no elaborate analysis or presentation of data seemed warranted. Distributions of the three scores are presented in Tables E-20, E-21, and E-22. The statements below are only descriptive.

- All groups of students increased their measured reading and arithmetic skills during the 1974-75 school year. The (CE)₂ students did not, however, show as large increases as did the control or other non-(CE)₂ students in reading or arithmetic concepts. All three groups were approximately equal in the increases shown on arithmetic applications.

What Plans Do These Students Have For Next Year?

The time available for the interview did not allow for the collection of a great deal of detailed information about plans for the next year. Additionally, most students' plans seemed still to be at a rather general

level (i.e., continue high school, go to college, get a job, etc.) with little more detail that could be elicited by the interviewers. This is not to say that extended conversations or discussion with the student of the kind that a Learning Coordinator or high school counselor might have over time would not reveal more detailed plans. They were not, however, forthcoming in an interview conducted by a stranger under rather tight time constraints. Generally:

- Nearly all of the 11th grade students in all the groups planned to continue in high school, with only one (CE)₂ and one control group student planning to attend a community college. Virtually all of those planning to continue in high school expected to attend the same high school again, either (CE)₂ or Tigard High School.
- Four of the six seniors in (CE)₂ planned to continue their education, three of them at a community college and one in a vocational or technical school.

There was only one senior in each of the control and other non-(CE)₂ groups, and both planned to continue their education, one on a part-time basis and one on a full-time basis. More detail on the plans of the 11th grade students, and on the employment plans of the 12th grade students is given in Tables 5-12 and 5-13.

What Did the Parents Think of (CE)₂?

This section outlines some of the major findings about parents' opinions of the (CE)₂ program. Overall, parents were very well informed and very favorably inclined toward the program and the effects that the program had on the students. The results of the total questionnaire administered to parents are presented in Appendix E, beginning with Table E-23.

As discussed in Chapter 2, efforts were made to obtain questionnaire responses from the parents of all students who were enrolled in the (CE)₂ program during the Spring of 1975. A total of 42 (out of 53 possible) questionnaires were actually obtained.

TABLE 5-12
EDUCATIONAL PLANS FOR 11th GRADE STUDENTS

	<u>Experi- mental</u>	<u>Control</u>	<u>Other non-(CE)₂</u>
Early Graduation, Community College	1	1	--
EBCE High School	11	1	1
Regular High School	1	6	5
Not Asked or Uncodable	1	0	1
Total	14	8	7

TABLE 5-13
POST HIGH SCHOOL PLANS OF
12TH GRADE STUDENTS FOR EMPLOYMENT

	<u>Experi- mental</u>	<u>Control</u>	<u>Other non-(CE)₂</u>
Have Full-Time Job Part-Time Education	1	0	1
Seeking Full-Time Job Full-Time Education	1	0	0
No Educational Plans	2	0	0
No Job Plans Full-Time Education	1	1	0
Not Asked or Uncodable	1	0	0
Total	6	1	1

In any high school, parents undoubtedly differ greatly in the amount of information they have about the school and in the ways they get the information. It is important, therefore, to describe the kinds of information on which parents base their opinions of the school, and the ways in which they have obtained this information, in order to make some judgement about the validity of the opinions reported. Of course, the validity of the opinions in some sense can mean only the confidence that parents have in their opinions. If the quality of information on which the opinions are based varies widely, the validity of the opinions as reflections of what the real school is will also vary from parent to parent. For very obvious reasons, no attempt could be made in this study to determine the accuracy of the information the parents have, which, for an individualized educational program, would vary for every set of students and parents.

How Do Parents Learn About the (CE)₂?

Parents were given a list of seven kinds of contacts they might have had with (CE)₂ shown below:

- Individual meetings
- Phone conversations
- Mailed correspondence -- specific information about son or daughter
- Written reports about the performance of son or daughter
- Mailed correspondence -- general program information
- Spoken reports about the performance of son or daughter
- Group meetings (with other parents)

The parents were asked to indicate whether or not contact had been made with (CE)₂ in each manner. Seventy-four percent or more of the parents indicated that each of these methods of communication had been used in their dealings with (CE)₂. The exact percentage of parents responding in each category is provided in Table E-29.

It is evident that the parents of (CE)₂ students have been well informed about the program, and that a variety of methods have been utilized in keeping them informed. The parents recognize that they are well informed. Ninety percent of the parents responding

indicated that they were receiving all the information they needed about their sons' and daughters' progress and performance in (CE)₂, and 88% said that they were receiving all the information they needed about the program in general. The majority of parents (55%) said that they were in contact with the (CE)₂ staff several times a year. Almost a quarter of them (24%) indicated that they were in touch once or twice a month. Tables E-28, E-30, and E-31 provide additional information on the frequency of parental contact with (CE)₂ and parents' opinions about the adequacy of the information they receive.

What Are the Overall Parent Evaluations of the School?

Parent opinions of (CE)₂ are extremely favorable. All of the parents responding felt that (CE)₂ was better overall than the past school experiences of their sons or daughters, and all felt that their offspring liked the (CE)₂ program better than past experiences. In comparison with past school experiences, 85% of the parents felt that their sons or daughters were learning more. Tables E-24 through E-26 provide the full breakdown of parents' responses in these areas.

Parents were also asked about particular strengths and weaknesses they saw in the program. The question posed was open-ended, and the responses were coded into categories. The most frequently mentioned strengths (comprising at least 15% of the comments received) were:

- Staff; people -- LC's, EI's, tutors, etc.; relations between staff and students; cooperative atmosphere
- Small size; students get individual attention
- Direct experience in the community and on the job; career and job exploration; contact with the "real world"
- Gives students responsibility and independence; helps students mature

Parents were particularly impressed with the (CE)₂ staff. One-fourth of the comments made were comments about the staff, and almost half of the parents cited them as a strength of the program.

Comments about program weaknesses were widely varied. Only two comments were made by as many as five parents,

and one of these was that there were no weaknesses. The other was that there was not enough supervision of students. Tables E-39 and E-40 contain the complete list of parent-cited strengths and weaknesses.

What Do Parents Think the School
Did for the Students?

This question can best be approached by a consideration of responses to the question about changes the parents observed in the students over the year. When asked whether they had observed changes in their sons and daughters that might be attributed to (CE)₂, 90% of the parents indicated that they had. All of the parents who had seen changes in their offspring thought that the changes were positive.

The positive changes described most frequently by the parents (comprising at least 10% of the total number of comments made) were:

- More confidence, self-assurance, self-reliance, independence
- Greater interest in school; more positive attitude toward school and learning
- More mature; grown up
- Greater responsibility; more reliable; worked harder than before

A complete listing of changes in students observed by their parents is given in Table E-35.

The questionnaire also asked parents to indicate what kinds of effects they had hoped or expected the school would have on their sons or daughters at the time of enrollment. The categories comprising at least 10% of the total number of parents' coded responses are listed below, and the complete list with percentages is given in Table E-32.

- Career or job experience, exploration and observation; knowledge of job opportunities
- Good education; better learning; better academic performance
- Greater interest in school; motivation
- Discipline; responsibility
- Self-reliance; confidence
- Selection of a career; a career or job choice

This question is, of course, somewhat artificial when asked at the conclusion of the school year. Nevertheless, it does show a very close correspondence, in the affective domain, between what parents think should have been accomplished and what they felt was accomplished for their sons and daughters. The career awareness and career choice expectations may or may not have been fulfilled, but they were certainly less prominent in the minds of parents as to the effects of the program than were the increases in personal skills development of the students.

What Do the Former Students Think
about the EBCE Program?

Staff friendliness and interest and student freedom and independence in learning were the best liked features of (CE)₂. The majority of the former students recalled they had learned "a lot" in the interpersonal skills and job seeking skills. Learning how to communicate with adults and peers was considered the most useful thing learned in EBCE. There was no consensus on the changes that might be made to improve the program. The most widely recalled specific difficulties encountered in (CE)₂ concerned relationships with staff members and work on projects.

As described in Chapter 2, a total of 47 (CE)₂ former students were interviewed by telephone. Forty-one percent of these had graduated from (CE)₂, generally after one year in the program. The remainder reported they had left (CE)₂ before graduating. When asked the reason for leaving, most of them said they had withdrawn from the program voluntarily. Three students indicated they had been asked to leave.

Results for selected questions from the telephone interview instrument are discussed in the following sections about (CE)₂ former students. The results of the total questionnaire are presented in Appendix E, beginning with Table E-42.

What Are the Overall Former Student Evaluation of (CE)₂?

Former students were asked to comment on what they liked best about the EBCE program. Responses to this open-ended question were coded into general categories. The majority of responses given by both graduates and nongraduates centered around three program features:

The staff; friendliness, interest,
openness; staff-student relationships
The freedom, independence, flexibility
Employer site experiences; job and
career exploration

Uppermost in the former students' recollections were the friendly and interested (CE)₂ staff and the freedom they had been given to progress at their own pace and to choose their own learning activities. More than half of the comments made centered around those two features.

Former (CE)₂ students were also asked to recall what they had disliked most about the (CE)₂ program. About one-third of both the graduate and nongraduate former students indicated there was nothing in particular that they could recall they had disliked about the program. However, five categories of dislikes were mentioned with some frequency (comprising at least 10% of the responses of at least one of the respondent groups--graduates or nongraduates). These were:

Not enough contact with the regular high
school; lack of social activities
Too little coordination/communication
between staff and students
Particular staff member
No job sites of interest
Too loose; too free; too much responsi-
bility on students

Clearly, the former students were much more willing to recall what they liked than what they disliked about their EBCE experiences. The complete listing of categories and percents can be found in Tables E-64 and E-65.

What Did the Former Students Learn in (CE)₂?

The former students were given a list of 14 learning areas and were asked how much had been learned in each area--a lot, some, a little, or nothing at all. Half or

more of both the graduates and nongraduates recalled they had learned "a lot" in seven of the areas:

- Ability to communicate with other students
- Ability to communicate with adults
- Getting along with other people
- Availability of different jobs
- Skills needed to get jobs
- Tolerating many ideas and backgrounds of people
- Specific job skills

Interpersonal skill development was most widely remembered as a major learning outcome from participation in EBCE. Learning of job seeking skills had also been extensive.

A quarter or more of both graduates and nongraduates remembered learning little or nothing in (CE)₂ in three of the areas, as indicated below.

- Reading skills
- Math skills
- Writing skills

It is apparent that the development of cognitive skills was secondary to interpersonal skill and job seeking skill development in the (CE)₂ program. Table E-55 can be studied for a more comprehensive view of former students recollections of learning at (CE)₂.

What Do Former Students Think (CE)₂ Did for Them?

The majority of the former students felt that their (CE)₂ experiences were beneficial to them in terms of their future life activities: 95% of the graduates and 61% of the nongraduates reported that (CE)₂ had had a good effect on preparation for jobs; 68% and 57% respectively indicated that it had had a good impact on preparation for further education. (See also Table E-57.)

Responses to a question about what kinds of things learned in (CE)₂ had proved to be most useful in current activities were coded into general categories. There were five categories mentioned by at least 10% of the total group. These were:

How to communicate with adults and
peers
Responsibility, confidence; how to
get things done
How to relate to and prepare for
the real world
Career planning, experience; finding
out likes, dislikes
Specific job skills

In the memories of both graduates and nongraduates, the outstanding benefit of time spent at (CE)₂ was learning how to communicate with adults and peers. This response accounted for about 35% of the comments made by each of these groups. The complete list of categories, with percents, can be found in Table E-56.

(CE)₂ former students were also queried about the value of three particular EBCE activities--job site experiences, certification of "survival skill" competencies, and completion of projects. Most of the former students (100% of the graduates and 86% of the nongraduates) felt that the job site experiences had been valuable, mainly for the practical experience and opportunity to learn about various working conditions and job requirements. Eighty-nine percent of the graduates and three-fourths of the nongraduates considered the competencies valuable, likewise for the practical experience not usually offered in high school. The majority of both groups of former students indicated that working on projects had been of value to them, although there was a fairly widespread feeling that some projects had been more beneficial than others.

Tables E-61, E-62, and E-63 contain more information about former students opinions of these (CE)₂ activities.

What Do Former Students Wish (CE)₂
Could Have Done for Them?

People invariably remember some problems encountered in past school experiences. The widespread recollection of a specific difficulty, however, may suggest possibilities for improving a program. (CE)₂ former students were asked if they recalled any problems in three general areas--relationships with people, program activities, and direction/guidance. If they recalled problems in these general areas, they were asked to indicate the particular difficulties encountered.

The majority of former students remembered problems in relationships with other people, primarily (CE)₂ staff members. This might be expected in a learning situation where students and staff work together closely and informally and does not necessarily imply the problems were major ones. One of the best liked features of the program was the general staff friendliness with, interest in, and openness with students.

The majority also recalled problems associated with the program activities, specifically projects, mentioned by about 40% of the graduates and a quarter of the non-graduates. Competencies and learning level placements were also cited as problem areas with some frequency.

Problems in the general area of direction and guidance were recalled by relatively few of the former students. Those who had encountered problems in this area cited feedback as the major difficulty. Tables E-58, E-59, and E-60 provide more information on former students' responses about problem areas.

When asked to comment on the changes they would like to see made in the (CE)₂ program, the group suggested eight general categories of change. Twenty-three percent of the graduates and 36% of the nongraduates felt (CE)₂ needed no changes. The only change mentioned with great frequency (by almost one-fourth of the total group) was that there should be better organization and the program should be directed more to student interest, eliminating irrelevant projects and competencies. Table E-66 provides the full breakdown of former students' responses about changes they would like to see made in the (CE)₂ program.

What Are the Former Students' Current Activities and Plans?

Educational experience since (CE)₂. Over half of both graduate and nongraduate former students reported they had been enrolled in some type of educational program since they left (CE)₂. Thirty-one percent of the graduates and 18% of the nongraduates were currently enrolled at the time they were interviewed. Among the graduates, a little more than a quarter were attending or had attended two-year colleges. A similar number were involved in four-year college programs. Thirty-six percent of the graduates reported completing an educational program beyond (CE)₂.

Among the nongraduate former students, one-fifth had returned to some type of high school. Most of the nongraduates (60%) were continuing their education in two-year colleges.

Former students' reports of subjects and skills being learned were coded into 12 general areas (Project TALENT). The most frequently mentioned area of study was the technical or technology field, cited by about one-fifth of the continuing students.

Educational aspirations. When asked the subjects or skills they would like to learn more about in the next five years, former students were varied in their interests. Responses were coded into the 12 Project TALENT categories. Two areas comprised at least 10% of the responses of both graduate and nongraduates: business administration and mechanics and industrial trades.

Former students with educational experience were also asked the level of formal education they planned to complete. Among the graduates of the (CE)₂ program, 55% expected to get four-year college degrees. None indicated interest in graduate school; 9% wanted to complete two-year college degrees; and 36% expressed interest in vocational or trade or business school certificates.

Among the nongraduate former students, 13% expressed interest in a high school diploma or equivalency; 27% were anticipating four-year college degrees; and 20% were interested in two-year college degrees. Another 27% of the nongraduates expressed an interest in obtaining certificates of one sort or another. As with the graduates, none were aspiring to any degrees beyond the bacalaureate.

Work experience since (CE)₂. Most of the former students, both graduates and nongraduates, reported they had been employed since they left (CE)₂, more often in full-time than in part-time positions. About half of the group indicated they were presently employed at the time they were interviewed. Responses about kind of work done were coded into 12 occupational areas, according to the Project TALENT categorizations. Jobs in the area of general labor, community and public service had been held by 50% of the nongraduates and almost one-fourth of the graduates of (CE)₂. A third of the graduates had held secretarial-clerical or office work jobs, while a substantial number in both groups had worked in the mechanical and industrial trades.

Career and financial aspirations. Former students with work experience were asked about their career and financial aspirations. Descriptions of jobs desired in the next five years, which were coded into the 12 occupational areas, were varied. The four most frequently mentioned categories were: general teaching and social service; fine arts and performing arts; general labor, community and public service; and, technical jobs.

When asked how much money they'd like to be making, realistically, five years from now, about one-third of both groups of former students planned future annual incomes in the range of \$9,000 to \$16,000, considered average by today's standard of living. About 15% anticipated low incomes--\$8,000 or less--and about 20% desired \$17,000 or more.

In summary, over half of the former students have continued formal schooling after leaving (CE)₂, the nongraduates generally attending two-year colleges and the graduates, two- and four-year institutions. Most of the former students have had work experience since EBCE, predominately full-time employment in the area of general labor, community and public service. Educational, career, and financial aspirations were varied.

A great deal more information about the educational and occupational status and aspirations of former (CE)₂ students can be obtained from perusal of the tables in Appendix E. Tables E-44 through E-47 and Table E-34 contain information on work experience and future plans. Tables E-48 through E-51 and Table E-53 contain information on educational experience and aspirations.

How Do the Resource Persons Feel About EBCE and Their Role Within It?

It is somewhat difficult to derive generalities from the information provided by resource personnel in Tigard. This can possibly be attributed to the fact that various kinds of people responded to different forms of the questionnaire. There were three basic groups involved. Organizational representatives responded to general questions on roles, policy, background, and contacts. Employer Instructors (EI's) who dealt with students and their activities were split

into two groups: those who dealt with the Exploration Level students, and those who dealt with the Learning Level students. Depending on the site, one person might hold all three roles or only one or two of them.

Basically, it would seem that the EI's regard the experiential activities of students to be quite effective. The Learning Level seems to be regarded as more effective than the Exploration Level, primarily because of the longer time that students are on site. The employers seem to be quite involved in many phases of the program. They frequently cited the cooperative interaction of the personnel involved--themselves, (CE)₂ staff, and students--as one of the greatest strengths of the program. They seem quite integrated into the overall, total structure of the program.

As discussed in Chapter 2, 100 interviews by mailed questionnaire or telephone were conducted with community resource personnel. Sixty interviews were conducted which contained contact questions--i.e., questions about the overall policy and roles of the employer site organizations. Fifty interviews were conducted with Employer Instructors who dealt only with Exploration Level students, and 33 with EI's who dealt with both Exploration and Learning Level students.* Questionnaires were mailed to all employer sites used as resources by (CE)₂.

This section provides information related to several questions of interest to the NIE. The results of the complete questionnaires are summarized in Appendix E, beginning with Table E-67.

How Did the Resource Organization Become Involved in EBCE?

Contact with (CE)₂ personnel was by far the most common introduction to involvement with EBCE in Tigard. Forty-six of the employers who answered this question (77%) cited this as the precursor to their participation.

*Since some of the respondents had overlapping roles, the questionnaire totals for the three groups add to more than 100.

Other means of involving employers included contact with (CE)₂ students and contact with someone from another employer site. Table E-68 provides the complete breakdown of responses to this question.

What Were the Skills and Knowledge Imparted at the Employer Sites?

Cognitive skills. EI's were asked different questions depending on whether they dealt with students who were on Exploration Levels or who were on Learning Levels. Since the Exploration Level was designed to develop general learning, rather than for the acquisition of specific skills, EI's who dealt with these students were not asked about activities which would include the use of cognitive skills (defined narrowly here as reading, writing, and mathematics).

EI's who had had students on Learning Levels did respond to questions regarding tasks at their sites which would require students to use reading, writing, and mathematical skills. These EI's indicated that reading was the skill most frequently needed (76%), followed by writing (55%), and mathematics (49%).

Career awareness. Tables E-101 and E-105 delineate the various activities that engage EI's and students in the course of Exploration and Learning Level experiences. It becomes obvious in looking at the tables that EI's introduce students to a wide variety of information, both general and specific, in the area of career awareness.

There are not many differences between activities at the Exploration Level and the Learning Level, with one major exception. As already mentioned, students were not expected to learn specific skills at the Exploration Level. Therefore, EI's were not asked whether or not students were taught to perform specific jobs at the site.

EI's are also less likely to refer Exploration students to other agencies or persons for additional information (32%), than they are to refer Learning Level students (55%). By their own report, EI's working with Learning Level students do discuss frequently such career-related information as earnings, fringe benefits, and advancement prospects.

How Do EI's Assess Skills Taught?

A total of 83 EI's who dealt with Exploration Level students were asked a question on the assessment of students at that level. The majority (66%) did not use any procedures to assess these students other than the required checkoffs on Exploration packets. Of non-required procedures used, testing (entrance-level, quizzes, memory checks, etc.) and continuous observation were most frequently mentioned. Student effort, interest, and productivity were also cited. (See also Table E-104.)

In the instance of Learning Level students, the 33 EI's who dealt with students at that level responded in a variety of ways to the question on assessment. Almost half did not respond at all, however. The most frequently mentioned evaluative procedure was the examination of student products or attention to student productivity. EI responses in this area are detailed in Table E-114.

Do Employers Fill Any Non-Instructional Roles in the EBCE Program?

Student selection for site participation. Only slightly more than one-quarter of the 60 organizational representatives responding felt that they or their organization played a part in deciding which students came to their sites. Seventy-two percent felt that they did not.

Of those who felt they did have a say, only two roles were mentioned with any frequency. Nine respondents indicated that students were screened for interest and capabilities, and five indicated that the kind of student desired on their site was specified. Table E-87 contains more information on this question.

Curriculum development. Of the 60 representatives responding, only three felt that they had any role in helping to develop the (CE)₂ curriculum in general.

However, EI's did help to plan the learning goals of individual students at their site for the Learning Level. Eighteen (54%) of the 33 EI's who participated at the Learning Level indicated that they had some involvement. At the Exploration Level, while not involved in planning, EI's in general (74%) tended to discuss the exploration packets with students. (See also Tables E-102 and E-107.)

Policies of the career education program. The majority of the organizational respondents (58%) felt that neither they nor their organization had ever played a part in developing or helping to develop the policies, procedures, and practices of the (CE)₂ program. Thirty-five percent indicated that they had; and 7% did not know. Of those who felt that such a role had been assumed, almost half indicated that it was in the form of making suggestions. Five of the employers had served on the Governing Board of (CE)₂, and two had helped to develop other employer sites. Table E-88 contains more information about this area of involvement.

What Are the Benefits and Disadvantages of the EBCE Program as Perceived by Employers?

To the organization. The majority of the organizational respondents (68%) felt that their organization benefited through its participation in the (CE)₂ program. Only four employers felt that a loss to the organization was connected with their involvement in the program, and one of these felt there was a benefit as well. A significant proportion (25%) gave a neutral response, indicating that their organization neither gained nor lost through its participation.

The comments most frequently associated with this question seemed to center around student provided benefits. Employers felt that it was valuable to learn student opinions; that teaching students helped their employees; that students were helpful and assisted their staff; and that the presence of students improved the working environment. About 50% of the responses were associated with these factors. The breakdown of all responses related to benefits and disadvantages appears in Table E-86.

In terms of quantity of work performed by employees, 78% of the respondents felt that it was not affected by (CE)₂ participation. Five employers felt that the amount of work done had increased as a result, and four felt that it had decreased. The majority (70%) also felt that the quality of work done by employees at their organization was unchanged as a result of the involvement. Of the eleven who noted an impact, nine considered that the qualitative change was for the better, while only two felt that the change was for the worse. Unanticipated costs due to the program occurred in only three cases, and in none of these situations were they considered a

problem. Tables E-74, E-81, and E-82 contain more information relevant to the effects of (CE)₂ participation on employer sites.

To the students. Only EI's who dealt with Learning Level students were asked their opinions regarding learning in the EBCE setting as opposed to a traditional high school setting. Eighty-two percent of the respondents felt that there were things that students could learn more easily in EBCE than in a more traditional environment. Thirty-one examples as to the nature of this benefit to students were proffered by the EI group. These responses followed two general trends. Sixteen of the responses dealt with the experiential aspect of the program, contact with the "real world". Thirteen of the responses dealt with students' personal growth, in terms of interpersonal skills and responsibility. (See also Table E-112.)

The only opportunity the EI's had to comment on the Exploration experiences was when they were asked "How effective do you think the exploration level experiences are in introducing the students to the employer site?" The majority of the 83 EI's (54%) felt that these experiences were somewhat effective (56%). A great many felt they were very effective (36%).

The variety of opinions received pertaining to the effectiveness of the exploration experiences was interesting. Many responses dealt, in one way or another, with the short time span allotted to individual explorations. EI's seemed about evenly divided in their opinions about whether the short term exposure was effective or not. The EI responses are shown in Table E-103.

EI's who dealt with Learning Level students were also asked how effective they felt these experiences were. The largest category of response was "very effective", cited by 46% of the EI's. Twenty-seven percent felt that they were somewhat effective; and 9% somewhat ineffective. The most frequently expressed reason for these feelings (accounting for 31% of the responses) was that the Learning Level experiences allowed students to gain practical experience and on-the-job training. The only other comment made by more than two of the EI's was that the effectiveness of the experience depended on the students, and this was noted

by five of the respondents. Table E-113 provides more information about the opinions of EI's about the Learning Level.

These EI's were also asked about changes they had noticed in the Learning Level student that they had worked with most recently. Based on this limited sample of students, EI's seemed to notice the most change in students in their ability to respond to questions or directions, and the least change in their ability to take the initiative and in their dependability or trustworthiness. In almost all cases, changes noted were positive. These responses are detailed in Table E-106.

Are EBCE Students Prospective Employees of the Employer Sites?

It would seem that EBCE students are indeed regarded as potential resources to the employer sites. Of the 60 organizational representatives responding, twelve (20%) indicated that they had already hired former EBCE students in their organizations. Forty-eight (or 80%) indicated that they would do so depending on the student and the needs of the organization. Only three employers indicated that they would not. (See also Table E-84.)

Can Present EBCE Resources Expand Their Participation?

Most employers (77%) felt that they were already taking on as many students as their organization was capable of dealing with, and indicated that if their organization continued with (CE)₂ participation, it would continue at the same level. Seventeen percent thought that the organization could handle more students. (See also Table E-93.)

The employers were also asked to check factors which would be involved if the organization was to increase the number of students it dealt with. The most frequently cited factors were associated with personnel and time needed. These factors were cited by two-thirds or more of the respondents. No other factors were cited by more than one-fourth of the group. The breakdown of employer responses in this area is given in Table E-96.

What Relationships Do Employer Sites
Have with Other Secondary School Projects?

Only 37% of the employer site representatives indicated that their organization was involved in any educational program dealing with high school students other than EBCE. The majority were not. A variety of kinds of programs were mentioned, but only two by more than one employer. Eight employers mentioned that they also participated in cooperative work, work experience, work orientation, or intern programs; and eight indicated that their organization provided lectures and presentations in schools. Table E-100 provides the full breakdown of responses in this area.

CHAPTER 6

ACADEMY FOR CAREER EDUCATION

The Experience-Based Career Education (EBCE) program developed by Research for Better Schools, Inc. (RBS) was called the Academy for Career Education (ACE). The Academy was located in Philadelphia, Pennsylvania, and was housed within Olney High School (OHS), a part of the Philadelphia public school system. The students of the Academy were regularly matriculated Olney students, and were required to meet the stipulations of OHS for graduation.

The description of the EBCE school procedures that follows is based on a number of sources of information. Foremost among these are the report of the ethnographic study of the Academy (Volume V), materials and information produced by RBS, and what was learned or observed by ETS staff during visits to the school. The description is necessarily a summary, intended only to give enough knowledge of the program organization, processes, and materials sufficient to understand the specialized Academy terminology used in this report. Because of the brevity of this description and because of the individualized or personalized nature of the program, the summary must be considered only as an overview of what was being evaluated in the study. The description does include some comments based on information gained in components of the evaluation study, where such comments seem likely to aid in understanding what went on at the school. This evaluative kind of information is presented in more detail in the ethnographic report (itself a kind of thorough description of the school) or in later sections of this chapter. A more complete and informative description of the school procedures and materials as presently structured can be obtained from material available from Research for Better Schools.

What Were the Procedures Used at the Academy for Career Education?

Processes at the Academy can be divided into four basic components: individualized instruction in basic skills conducted at the Academic Resource Center; electives taken at the home high school; counseling and guidance; and field experiences. Assessment of students took into account all components.

Academy students were at the school four days a week, and out in the community on explorations or specializations (described below) one day a week. During the four days per week spent at the school, two periods a day were devoted to basic skills work and three were spent taking regular classes in OHS (designated as electives). Group guidance sessions were held for one period, two days a week, in addition to individual counseling.

The Academic Resource Center

Individualized instruction in basic skills took place in the Academic Resource Center (ARC). Mathematics and English were compulsory for all students throughout their participation in the Academy program. The majority of the students spent their time in the ARC working through a programmed learning approach to basic skills, which carried them to the ninth grade level. These basic competency materials were the ILA Communications Skills and ILA Mathematics Skills, developed by RBS. Once these materials were completed, students worked on individual reading designated by the instructor. There were six ARC instructors, who were recruited from and remained a part of the staff of Olney High School.

One problem seems highlighted in relation to activities in the ARC, and this is the students' adaptation to the concept of individualization. The ARC is individualized in the sense that students work at their own pace without group instruction from a teacher. They must request help if they need it. Students who are not accustomed to this form of learning often experience difficulty, to varying degrees, in utilizing it.

Field Experiences

The field experiences were the heart of the Academy program--that which differentiated it from regular high school programs. These experiences comprised the career development component of the Academy.

In cooperation with community participants, career development courses were conducted outside the school at various employer sites throughout Philadelphia. This component was designed to permit investigation and experimentation with a variety of careers and jobs. Two levels of career development--exploration and specialization--were available to students.

Field experiences were provided on a career cluster model. A career cluster is a broad area of the working world, encompassing many careers or jobs. Examples of clusters are Natural Resources, Communications, Health, Manufacturing, Retailing, etc. Approximately 23 career clusters were available to students of the Academy.

The field experiences accounted for one day a week at the Academy, and were the responsibility of staff members called counselor-coordinators. There were eleven counselor-coordinator positions on the Academy staff. A variety of types of persons were employed in this position and formal certification was not a requirement. Counselor-coordinators were also responsible for the guidance component of the program, described in the next section.

In their duties connected with the career development component, counselor-coordinators attempted to integrate the field experiences of the students into their total Academy program. In addition to working with the students, these staff persons were also required to develop several career clusters and to identify, recruit, and develop employer sites appropriate for use within the clusters.

Exploration. Career explorations were required activities, and each Academy student participated in at least one per term. The typical exploration involved groups of between 8 and 15 students. These groups visited three employer sites within a career cluster. During the course of the experience, each site was visited three or four times. The object of exploration was to have the cluster or career area presented from a variety of vantage points.

Early in each term, students were required to select a cluster for exploration. Because of the differential popularity of some clusters, students were at times unable to participate in the experiences of their choice. The differential popularity of clusters seemed to be partly a result of student interest and partly caused by differing quality of the cluster experiences. Student dissatisfaction sometimes arose because of scheduling problems.

Specialization. Specialization was an elective for all but returning second year students. Unlike exploration, specialization was conducted on an individualized basis. Students in specializations spent between a few hours to a full day a week for a term (twelve weeks) or more at one employer site.

The specialization is an indepth experience, usually flowing from a student's cluster exploration experiences.. Working together with a counselor-coordinator and an employer-instructor, the student designs his objectives (or courses) to meet his own specific interests.

Guidance and Counseling

The guidance program was designed to help students in self-understanding and in planning for their futures. The counseling component had two facets. One was individual counseling. Each student was expected to attend an individual counseling session at least once every three weeks. Actual participation varied, however.

Group guidance classes were scheduled twice weekly for all students. The counselor coordinators were responsible for both career development and career guidance, and the group sessions were intended to help integrate these instructional goals. The guidance classes were conducted using materials and a format developed by Carkhuff Associates, which stressed abstract, step-by-step processes in decision-making and values clarification. It was found that both students and counselor-coordinators could relate better to the materials if they were allowed to incorporate their own experiences, rather than dealing with the concepts totally in the abstract. Gradually, the rigid format associated with the Carkhuff materials was abandoned, and the materials became a guide rather than an absolute for conducting the group guidance classes.

One objective of the guidance component was to help the students make the transition to the new kinds of learning experiences offered at the Academy. However, this attempt was not totally successful. The lack of integration between components of the program persisted, and was felt to varying degrees by the individual students. This lack of integration was caused in part because there was no workable central record keeping system, and in part because of inadequate communication between basic skills instructors and counselor-coordinators. This separation of processes within the program tended to foster a certain sense of isolation in the students.

Electives

Students took three regular classes at Olney High each term, classified as electives. Ideally, the three courses comprised two major subjects, such as a foreign

language or a science, and one minor subject, such as health or physical education.

Since the regular OHS classes were scheduled for five days a week, the day lost by the field experiences sometimes presented a problem for Academy students. The OHS instructors were usually willing to accommodate and make allowances for the students in this regard, but some problems were unavoidable.

Student Assessment

Students were given both a grade and a behavior rating for each of the components of the program. The activities particular to the Academy were translated into Olney High School courses, where the students were matriculated. One difficulty perceived by students in the program was the variability in grading. No universal criteria for assessment of their work existed in any of the components (with the exception of the elective courses taken at OHS). Instructors at the ARC graded them for their basic skills work, which was done at their own pace. Counselor-coordinators graded the group guidance work (the individual counseling was ungraded). Employers (with a few exceptions) graded the exploration and specialization field experiences. This grade was based at least in part on attendance, and students were responsible for getting themselves to the sites at the appropriate times.

What Kinds of Students Enrolled in this School?

The answer to this question is based almost entirely on information provided in the internal evaluation report prepared by the RBS staff (Research for Better Schools, 1975). The schedule for the external evaluation study did not permit the independent collection of student and family background data, at least some of which was obtained by the project staff at the time of student recruitment and selection in the spring of 1974. While ETS might have collected additional information, doing so after the initiation of the external evaluation would undoubtedly have resulted in some duplication of effort on the part of the students involved; it would also have been unusually difficult to obtain this information from control group students who had not been admitted to the school. The source report from which the data presented here was taken includes more detail. That report should be consulted if additional information is desired.

About 350 students were enrolled in the Academy at the beginning of the year. Eighty-eight percent were students starting their first year in the school; 12% were students returning for the second year in the program. There were 259 students in the school at the end of the year, of whom 85% were completing the first year and 15% were completing the second year. The reasons for student attrition are given in detail in the RBS evaluation report cited above. It suffices to say here that only one-third of the students who did not complete the year were classified as "drop-outs" by the school, the rest having transferred back to the regular school program. Descriptive data for the students who were in the school at the end of the year and information about their parents' education are presented in Tables 6-1 and 6-2.

These data indicate that a large majority of the students were black and came from middle or lower middle class homes, with the majority of parents employed in jobs requiring manual labor, either skilled, semi-skilled or unskilled. In these respects, the students were probably fairly representative of the one large urban high school in which the Academy was located, and from which it drew most of its students. The rate of unemployment of parents as stated is somewhat lower than might be expected at this time, although this may be more apparent than real in view of the high percentages for whom data were not available.

There was a larger percentage of females than males in the student body, which was probably unrepresentative of the school from which the students were drawn, and there were fewer 9th and 10th grade students than would be the case for the total school. Very clearly, the mode for these students is the 11th grade. What is noteworthy, however, is that this is the case for the students who were in the second year as well as the first year of the EBCE school. Unlike the other three EBCE projects, it is possible that more than half of this group might be able to enroll in the Academy for a third year.

The students were asked to choose from a list up to three reasons for enrolling in ACE. The percentages of students marking each reason on the list are shown in Table 6-3. Most of the students marked either two or three reasons, so the percentages total to more than 100.

It is evident that the three groups differ somewhat in their school enrollment objectives. Learning about careers was the most popular reason for all the groups, but this was a relatively less popular reason for the First Year Experimental group students. These students

TABLE 6-1

DESCRIPTIVE DATA FOR STUDENTS ENROLLED IN ACE
(All figures are percents)

	<u>First Year</u>		<u>Second</u>	<u>Total</u>
	<u>Experimental</u>	<u>Others</u>	<u>Year</u>	<u>(n=259)</u>
	(n=173)	(n=47)	(n=39)	
<u>Sex</u>				
Male	31	36	59	36
Female	69	64	41	64
<u>Ethnic Group</u>				
White	32	28	15	29
Black	63	70	85	68
Other	5	2	0	4
<u>Grade</u>				
9	27	13	0	20
10	20	30	5	20
11	43	40	51	44
12	10	17	44	17

TABLE 6-2

EDUCATIONAL AND OCCUPATIONAL INFORMATION FOR PARENTS OF STUDENTS IN ACE
(All figures are percents)

	First Year				Second Year		Total	
	Experimental (n=173)		Other (n=47)		(n=39)		(n=259)	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother
<u>Education</u>								
Elem. or Jr. High School	18	13	6	6	5	3	14	10
Some High School	17	18	2	13	18	15	14	17
High School Diploma	35	44	9	13	31	31	29	36
Some College or College Degree	12	12	4	0	13	21	11	11
Some Grad. Study or Grad. Degree	2	1	0	0	0	3	2	1
Other	8	6	4	0	3	3	5	5
Missing Data	9	5	74	68	31	26	24	20
<u>Occupations</u>								
Professional, Managers, Adminis- trators or Proprietors	17	10	2	2	10	13	13	9
Clerical, Sales, Technicians	3	16	2	2	3	3	3	12
Skilled Manual	31	3	11	4	13	8	25	4
Semi-skilled and Unskilled	24	17	4	6	15	10	19	14
Unemployed	3	3	0	0	5	5	3	3
Homemaker	0	36	0	15	0	23	0	30
Occupation Unknown	3	1	4	4	5	0	4	2
Other	9	5	4	0	8	8	8	4
Missing Data	9	9	72	66	41	31	25	22

TABLE 6-3

PERCENTAGES OF ACE STUDENTS CITING VARIOUS
REASONS FOR ENROLLING IN THE SCHOOL

	First Year		Second Year (n=14)	Total (n=205)
	<u>Experimental</u> (n=162)	<u>Others</u> (n=29)		
To find out about careers	57	86	79	62
To receive counseling about what to do after high school	46	29	45	45
To get job training	51	7	24	44
To get help in finding a job	39	36	21	36
To get into a program different from regular high school	14	57	38	20
To have learning activities outside of the school	18	43	14	19
To have more individual attention in my school program	15	21	21	17
To make new friends	2	0	14	4

seem to be much more interested in immediate job related outcomes, while the other two groups seem to be relatively more interested in finding an alternative to their regular school or to the procedures used in regular schools.

What School Procedures Did the Students Find Useful in Learning about Careers?

A review of the in-depth interview schedule, as described in Chapter 2 and presented in Appendix B, will indicate that a great deal of detailed information about learning processes was obtained. This abundance of detail is, of course, both a strength and a weakness in the use of interviews. This is particularly true when, as in this instance, there is great reliance placed on the use of free response questions directed to the personalized educational experiences of each respondent. After the responses were obtained, it was essential to develop coding systems for the responses that would allow for the organization and reduction of the information to a manageable form that would also retain with accuracy as much of the sense of original responses as possible. The very limited time available for the pretesting of the interview schedule meant that the task of defining the limited choice categories and rating scales could not be done prior to data collection. It had to be carried out after the fact, a less desirable alternative.

In providing information to answer the series of questions that follow, tabular presentations of data are used to identify what appear to be the most important conclusions to be derived from the data. All of the data from which these abbreviated tables were taken are presented in Appendix F for the use of those readers who may wish to review the detail. Each table in the body of the report is referenced to the more detailed table in Appendix F by number.

Reviewing very briefly the information on student selection and sampling presented in Chapter 2, interview data were available for two groups of students (experimental and control) who applied for admission to the Academy in the spring of 1974, and for a group of students who had been in the school for two years. The two former groups are identified here as first year experimental and control group students. The third group is identified as second year. There was no control or comparison group for these students. Random samples of the experimental and control students were identified to be interviewed.

Limitations of time made it impossible to interview the large group initially identified, however. The subsample actually interviewed was not biased in any known procedural way during the selection process. All of the second year students who could be contacted were to have been interviewed, but again, only a subsample could actually be contacted and interviewed.

How Useful Were the Employer Site
Experiences Arranged by the EBCE School?

This question can, of course, be answered only for students enrolled in the EBCE schools; i.e., it is not a meaningful question for control group students. As explained above, however, these program generated experiences represent the heart of the EBCE schools, and are the feature that most distinguishes them from the conventional high schools. In general terms, the question can be answered as follows for the ACE students:

- Approximately 60% of the first year students and 90% of the second year students found some exploration experiences relevant to their first career interest; but fewer of the first year students found them relevant to their second career interests.

More precise answers may be obtained using the data in Table 6-4 or by reference to Table F-1, which gives even more detail. Explanations for the marked differences between the first and second year students can be offered only as speculation. The most likely explanation appears to be that the first year students had to take time to learn about the new and different program and to "feel their way" in learning how to make good use of the resource sites. The second year students had had the opportunity to do much of this during the previous year. Another possible explanation is that the first year students, and particularly the 9th and 10th grade students, are not yet in a position to relate experiences to one or more defined career interests. In other words, their career interests may still be quite general, so they are still looking for experiences that will help to clarify interests. Finally, the differences in enrollment objectives of the two groups (as shown in Table 6-3 above) may be a factor of importance here. However, these results for ACE are quite similar to those obtained at Far West School where second year students were also interviewed. This suggests that enrollment objectives are a less important factor than some of the others discussed.

TABLE 6-4

PERCENTAGES OF STUDENTS CITING USEFUL
EBCE SCHOOL EXPERIENCE SITES

	<u>First Year</u>		<u>Second Year</u>	
	<u>First Choice</u>	<u>Second Choice</u>	<u>First Choice</u>	<u>Second Choice</u>
Exploration at:				
Two sites	15	10	18	18
One site	46	19	73	64
Other	7	10	—	9
None cited	32	62	9	9
Number of Respondents	28	21*	11	11

*Seven of the first year students had no second choice.

Note: These figures are derived from Table F-1.

How Useful Were the Academy Activities?

In general terms, the answer to the question is:

- Nearly half of the EBCE students cited one or more Academy activities that were useful for their first choice career, but very few of them felt that such activities were useful for their second choice career.

It should be remembered that this question was oriented to learning about specific careers of interest cited by students during the interview. Students may well have participated in Academy activities that they believed useful for other career related purposes.

A more precise answer to this question may be developed from the data in Table 6-5.

Are Non-School Activities Useful in Learning About Careers?

- A large majority of the students in this study have found some non-school activities useful in learning about careers of interest.

More precise answers to this question can be developed from Table 6-6. It should be particularly noted that the experience site activities of the EBCE students are arranged by their school, and are not included here. For these students, activities listed here are in addition to the resource site experiences.

TABLE 6-5

PERCENTAGES OF STUDENTS CITING USEFUL
ACADEMY OR SCHOOL ACTIVITIES

	<u>First Year</u>		<u>Second Year</u>	
	<u>Experimental</u>			
	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>
Two or more activities with staff member by name	4	--	--	--
One activity with staff member by name	11	--	18	--
One activity cited	22	--	18	10
Talk with teacher or Academy staff member	11	5	--	10
Outside speaker or class prior to EBCE application	4	--	--	10
No activity cited	50	95	64	70
Number of respondents	28	21	11	10

Note: These data are derived from Table F-2.

TABLE 6-6

PERCENTAGES OF STUDENTS CITING USEFUL
NON-SCHOOL ACTIVITIES

	<u>First Year</u>		<u>Second Year</u>	
	<u>Experimental</u>			
	<u>First</u>	<u>Second</u>	<u>First</u>	<u>Second</u>
	<u>Choice</u>	<u>Choice</u>	<u>Choice</u>	<u>Choice</u>
One location with adult involvement for extended period of time	18	22	9	10
Leisure time activity or making something at home	11	30	18	--
Talking with family or other adult	29	13	18	30
Job	7	--	18	10
Other or uncodable	7	13	--	--
No activities cited	29	22	36	50
Number of respondents	28	23*	11	10

* Five of the first year students had no second choice.

Note: These figures are derived from Table F-3.

How Useful Is Reading in Learning
About Careers?

- A majority of all the students in the study identified some reading that had been useful in learning about careers.

The differences between the first year experimental and control group students are not statistically significant. Larger percentages of the second year students cite useful reading, and can mention by name material they have read. Information on which these general answers are based is given in Table 6-7.

Do the Experiences and Activities
Result in Useful Products or
Specific Accomplishments?

- At most, 30% of the students in any of the groups mentioned products or accomplishments that resulted from their activities which were useful in learning about careers of interest.

There are no statistically significant differences between the first year experimental and control group students. However, the former group do mention new or revised career plans with some frequency, while none of the latter group cite these outcomes. More detail is provided in Table 6-8.

TABLE 6-7

PERCENTAGES OF STUDENTS CITING USEFUL READING

	First Year				Second Year	
	<u>Experimental</u>		<u>Control</u>			
	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>
One or two books with titles cited with or without other reading	8	19	16	27	36	36
Magazines, pamphlets, etc. only	22	37	15	27	27	18
Reading cited with no detail	21	5	31	18	27	27
Other or uncodable	4	--	--	--	--	--
No reading cited	47	41	38	27	9	18
Number of respondents	28	22	13	11	11	11

Note: These data derived from Table F-4.

TABLE 6-8

PERCENTAGES OF STUDENTS CITING USEFUL
PRODUCTS OR ACCOMPLISHMENTS

	First Year				Second Year	
	<u>Experimental</u>		<u>Control</u>			
	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>	<u>First</u> <u>Choice</u>	<u>Second</u> <u>Choice</u>
Individual or group product	11	5	--	--	18	10
Term papers or written reports	4	--	14	9	--	20
Specific learning or skill	4	9	7	--	--	--
New or revised plans	11	14	--	--	--	--
No products or accomplishments cited	70	73	79	91	82	70
Number of respondents	27	22	14	11	11	10

Note: These data derived from Table F-5.

Are the Student Experiences
Oriented Toward Career Choice?

- Seventy-five percent of the first year experimental group students, about 90% of the second year students, and a little more than half of the control group students appear to have some career focus, and some useful experiences relevant to this focus.

More detail on this question is given in Table 6-9.

What Did the Students Think About
the School?

All the students in the study, including the control group students, were asked if they would apply for admission to the Academy if they were given the choice again. The responses to the question posed above are shown in Table 6-10. In general terms:

- A very large majority of the first year students who had attended the ACE said they would reapply, and all but one of the second year students said they would reapply.
- Half of the control group students said they would reapply.

When asked to give reasons for their responses about reapplication, 79% of the first year students and 73% of the second year students gave responses which were classified as "opportunities to explore careers." The second most popular category of reasons mentioned by the first year students was "lack of rigid structure," but only 17% of them cited such reasons, and none of the second year students did so. The second most popular category of reasons mentioned by the second year students was "lack of pressure from grades and tests," mentioned by 18% of them. Thus, the reasons given by the students for reapplication were quite consistent with the most popular enrollment objective (to find out about careers) as shown in Table 6-3, but less consistent with the more specific job related enrollment objectives.

When the reasons given were classified as being positive or negative in the feelings expressed about the school, the EBCE students were very clearly positive, with 63 of the reasons being positive about ACE and only

TABLE 6-9

PERCENTAGES OF STUDENTS CLASSIFIED BY
CAREER FOCUS AND RELATED EXPERIENCES

	<u>First Year</u>		<u>Second Year</u>
	<u>Experimental</u>	<u>Control</u>	
Two careers of interest, experiences related to both experiences related to one	25 36	8 31	55 18
One career interest, related experience	14	15	18
Potential career interest, no experience	18	31	9
No focus, no useful experiences, or confused about careers	7	15	--
Number of respondents	28	13	11

Note: These data derived from Table F-6.

TABLE 6-10

PERCENTAGES OF STUDENTS WHO WOULD AND WOULD NOT
REAPPLY FOR ADMISSION TO THE EBCE SCHOOL

	<u>First Year</u>		<u>Second Year</u>
	<u>Experimental</u>	<u>Control</u>	
Would reapply	84	50	91
Would not reapply	12	36	0
Not sure	4	14	9
Number of respondents	25	14	11

15 being negative. Some of the students also gave reasons that were really related to the conventional school programs. It is clear, however, that the reasons generally indicated a liking for the EBCE schools rather than a dislike of the conventional school programs, since only four reasons were classified as negative about the conventional school as compared with the 63 pro-EBCE reasons.

This summary of the positive and negative reasons is based on data presented in Table F-7.

Are the Students Different Because They Attended the Academy for Career Education?

The information on student effects, other than basic skills, was collected in the interview context oriented toward career choice, as discussed in Chapter 2. Prior to discussion of the ways in which the students differ as a result of attendance at the Academy, therefore, it seems appropriate to summarize briefly the information obtained about students' career interests.

Considering both first and second career choices, the 28 first year students were interested in a total of 51 careers or jobs. The 10 second year students were interested in 20 careers. The particular careers of interest are detailed in Table F-8, which shows the percentages of students in each group who picked each of the careers.

In order to make some generalization about the kinds of careers/jobs these students were interested in, it was necessary to group the choices in coarser categories than were used for obtaining career requirements scores. Career groups defined in the Project TALENT five-year follow-up study were used for this purpose, because they were based on longitudinal data for high school students, and ordered careers approximately in terms of amount of education and training required. The most popular career for the first choice of both the experimental and control groups combined were: Medical and Biological Sciences (21%), Secretarial-Clerical Jobs (17%), and Teaching and Social Sciences (12%). Although there are not enough students to permit a statistical test of the differences between the experimental and control group choices, inspection of the data indicate that there are no appreciable differences.

The popular career areas for females in both the experimental and control groups were Nursing and Secretarial work. Because of the large percentage of females in the student body, the popularity of these two careers with females essentially accounted for the popularity of the Medical-Biological Sciences and Secretarial-Clerical career areas for the total student body. The male students tended to choose careers that could not be classified by career area. Nearly a third of the first choice careers were in this category. For those careers that could be classified, the most popular ones for males were Teaching and Social Sciences, and Technical Jobs.

There are no apparent differences between the experimental and control groups in the extent to which females express interest in careers traditionally seen as those most often chosen by men. The very small numbers of students choosing any particular career area, when the data are subdivided by group and sex, make any conclusion of doubtful value, however. The data used as the basis for these very general conclusions about career choice are presented in Tables F-8 and F-9.

Have the Students Considered More Than One Career?

- Most of the students have expressed interest in two careers. Only about half of the first year students currently have a preference between their career interests, while about three-quarters of the control group and of the second year students indicate a preference.

There is a statistically significant difference between the percentages of students in the experimental and control groups who now express a career preference. The data on numbers of career interests and preference are presented in Table 6-11.

What Factors Do Students Consider When They Choose Between Careers?

The students in both the EBCE and conventional school programs named a variety of different factors they would consider in choosing between the two careers of interest. On the average, the students gave three or four reasons, with no marked difference between groups in the numbers of factors to be considered. The student responses were coded using twenty different categories.

TABLE 6-11

PERCENTAGES OF STUDENTS HAVING TWO CAREERS OF INTEREST
AND HAVING A PREFERENCE BETWEEN CAREERS

	<u>First Year</u>		<u>Second Year</u>
	<u>Experimental</u>	<u>Control</u>	
Two Careers of Interest			
Prefer one over another	46	77	70
Equal in interest	25	8	20
Don't Know	11	8	10
One Career of Interest	18	8	0
Number of respondents	28	12	9

The analyses of these coded responses are presented in considerable detail in Table F-10. Recognizing the difficulty in providing a relatively simple answer to such a complicated question, a general answer is:

- There are no appreciable differences among the three groups with respect to the classes of considerations mentioned in choosing between careers; and there are only two particular considerations on which the difference between the experimental and control group is statistically significant: opportunities for travel, and money and other benefits for work. These were mentioned more often by EBCE students than by control group students.

What Do Students Say About Their General Career Interests and Knowledge?

- There are no obvious or statistically significant differences among the groups in the number of career areas in which they express interest, or report that they have some knowledge, nor are there any significant differences in the number of areas in which both high interest and high knowledge are reported.

Detailed data on self-reported interest and knowledge are given in Tables F-11, F-12, and F-13. Of course, self-report of knowledge about a career area does not mean that in fact the student is knowledgeable about it. Information about actual knowledge of requirements for careers of interest was obtained from a separate question. These self-ratings may, however, be indicative of the self-confidence a student has in the area of career knowledge, which is related to one of the EBCE goals. Additionally, if students say that they have no interest in a number of areas, it may be indicative of a premature restriction of the number of options open for career choice.

Do Students Learn about the Requirements for Careers?

There is quite a range in the knowledge of career requirements for these students. For this reason, and because of the difficulty of assessing such knowledge when students choose such a variety of careers, the

question can be answered in only the most general terms, and any answer must be considered to be quite tentative. With these cautions in mind it is possible to say that:

- About 40% of the EBCE students know 70% or more of the characteristics that are necessary for entry in the careers of interest to them; but they are not as well informed about the characteristics that are not necessary.

The control group students, on the average, had career requirements scores higher than the EBCE students, but the differences between the experimental and control groups are not statistically significant.

Data relevant to these statements are presented graphically in Figure 4-1, and are presented in much more detail in Table F-14.

Self-Image, Career Planning, and Basic Skills Development

Chapters of this volume in which data for the other three EBCE projects were presented included information relevant to a number of additional questions. These questions were:

Do students choose careers that are consistent with their knowledge of themselves?

What personal characteristics do students think have been changed during the school year?

How do the EBCE students feel about career planning?

Does the EBCE school experience have an effect on the students' basic skills?

What plans do these students have for next year?

For a variety of complex reasons, data to provide answers to these questions for students at the Academy for Career Education could not be obtained by ETS. The information necessary to deal with the first three questions would have had to have been obtained in the student

Academy for Career Education

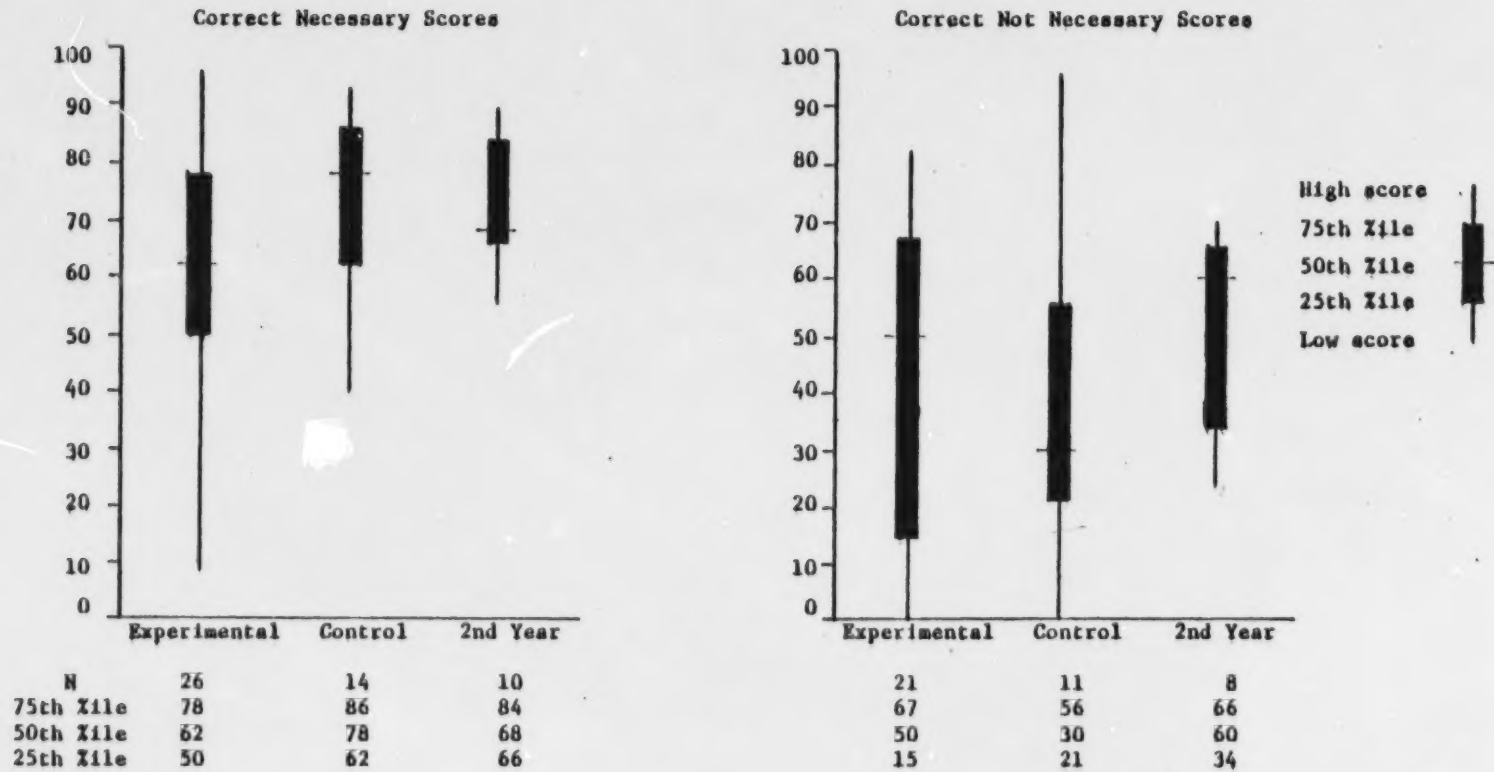


Figure 4-1. Distribution of Career Requirements Scores

interview, and there is no alternative way of approaching them. The evaluation staff at Research for Better Schools did collect and analyze data relevant to reading and arithmetic skills as measured by the CTBS. These results are presented in their evaluation report. The data presented in the report do not permit the same kind of analysis by ETS that was done for the other three projects, and the primary student data were not provided in time for an independent reanalysis. There seems little merit in simply repeating the results available elsewhere. The following conclusion is taken from the RBS evaluation report:

"Both first and second year experimental students showed some significant growth over the year, but not in all areas tested. Comparative analyses did not indicate significant superiority of the experimental students over the controls in any test employed. Thus, the experimental program was not demonstrated to offer advantages in the provision of basic skills instruction." (Research for Better Schools, p. vi)

What Did the Parents Think of the Academy for Career Education?

This section outlines some of the major findings about parents' opinions of the Academy program. Overall, parents were favorably inclined toward the program and their sons' and daughters' experiences in it. The results of the total questionnaire administered to parents are presented in Appendix F, beginning with Table F-15.

As discussed in Chapter 2, efforts were made to obtain questionnaire responses from the parents of all students who were enrolled in the Academy program during the Spring of 1975. A total of 139 questionnaires were actually obtained.

In any high school parents undoubtedly differ greatly in the amount of information they have about the school and in the ways they get the information. It is important, therefore, to describe the kinds of information on which parents base their opinions of the school, and the ways in which they have obtained this information, in order to make some judgement about the validity of the opinions reported. Of course, the validity of the opinions in some sense can mean only the confidence that

parents have in their opinions. If the quality of information on which the opinions are based varies widely, the validity of the opinions as reflections of what the real school is will also vary from parent to parent. For very obvious reasons, no attempt could be made in this study to determine the accuracy of the information the parents have, which, for an individualized educational program, would vary for every set of students and parents.

How Do Parents Learn About the Academy?

Parents were given a list of nine kinds of contacts they might have had with the Academy, and asked to indicate whether or not contact had been made with the school in each manner. There were only two kinds of contacts cited by as many as one-third of the parents as having been utilized in their dealings with the Academy, and both of these types of contacts were mentioned by more than half of the parents. They were:

- Mailed correspondence -- general school information
- Phone conversations

There were four kinds of contacts which had been experienced by less than one-fourth of the parents:

- Mailed correspondence -- specific information about son or daughter
- Spoken reports about the performance of son or daughter
- Personal observations at the learning center
- Personal observations of activities at employer/community sites

More detail on the response to this question is provided in Table F-23.

It is evident that the variety of methods of contacting parents and keeping them informed was somewhat limited at the Academy. A third of the parents indicated that they were rarely or never in contact with the Academy staff in the course of a year, and an additional 18% were in contact with the staff only once or twice in the course of a year. However, about two-thirds of the parents indicated that they received all the information that they wanted, both about the progress and performance of their sons or daughters and about the Academy program in general. The parents of Academy students are probably as well informed about what happens at the school and about the effects that the school has on their children

as is generally the case in more conventional schools. Tables F-22, F-24, and F-25 contain additional information about the frequency of parental contact with the Academy and parents' opinions about the adequacy of the information they receive.

What Are the Overall Parent Evaluations of the School?

Eighty-four percent of the parents said that the Academy program was better overall than the past school experiences of their sons and daughters. Eighty-seven percent felt that their sons and daughters liked the Academy better than they had past school experiences; and 77% said that their offspring were learning comparatively more. Tables F-16 through F-18 provide the full breakdown of parents' responses in these areas.

Parents were also asked to identify particular strengths and weaknesses that they saw in the Academy. Their responses were coded into general categories. Only one aspect of the program really stood out in the minds of the parents as a strength. The direct experience in the community and the exploration of careers and jobs was mentioned by more than 50% of the parents and accounted for more than half of the comments received. No other response accounted for as many as 10% of the total number of responses about strengths.

Over one-fourth of the comments about weaknesses were that there were no weaknesses in the program. The only other response that accounted for as many as 10% of the total number of responses was that there was not enough attention to basic skills or college preparation. The complete lists of parent-cited strengths and weaknesses are given in Tables F-19 and F-20.

What Do Parents Think the School Did for the Students?

This question can best be approached by a consideration of responses to the question about changes the parents observed in the students over the year. Slightly more than three-quarters (76%) of the parents had noticed changes in their sons or daughters that might be attributed to participation in the Academy program. Of these, almost all (98%) thought the changes that had occurred were positive.

The positive changes described most frequently by the parents, as coded from their free responses, are shown below. (These responses constitute at least 10% of the total number of coded responses.)

Learned about jobs, careers; has a broader
view of the world and jobs
Has decided on a career; has a more definite
goal for the future
Greater interest in school; more positive
attitude toward school and learning
Has more confidence, self-assurance,
independence

Only two parents gave responses which could be coded as negative changes. A complete listing of the positive and negative changes perceived by parents, with percentages, is given in Table F-30.

The questionnaire also asked parents to indicate what kinds of effects they expected or hoped the school would have on their sons or daughters at the time of enrollment. The categories comprising at least 10% of the total number of parents' coded responses are listed below, and the complete list is given in Table F-26.

Career or job experience, observation and
exploration; knowledge of job opportunities
Selection of a career; a decision about a
career
Good education; better learning and academic
performance

This question is, of course, somewhat artificial when asked at the end of the school year. However, it does show a close correspondence between what the parents now think should have been accomplished and what they think was accomplished for their sons and daughters. Career development was important, both in parents' expectations for the program and in parents' estimation of the effects of the program.

What Do the Former Students Think about the EBCE Program?

The Academy's former students recalled the job site experiences and the freedom and independence in learning they had had in EBCE as the best features of the program. Improvement of interpersonal skills was the most widely

noted area in which "a lot" had been learned, though a wide range of things learned in the Academy had proved to be useful in the former participants' current activities. The most frequently voiced suggestions for changing the EBCE program were to improve the cluster experiences and to allow more time on job sites.

A total of 62 former students were interviewed by telephone. About half (32) were graduates of the Academy, most having completed two years in the program. The other half had left the Academy before graduating. In general, these nongraduates had spent 6 months or less in EBCE. Three former participants indicated they had been asked to leave the EBCE program. The other nongraduates reported they had left voluntarily, most frequently commenting that the program hadn't been as they had expected or that they didn't learn enough in it.

Results for selected questions from a telephone interview instrument are discussed in the following sections about the Academy's former participants. Complete results of the questionnaire are presented in Appendix F, beginning with Table F-36.

What Are the Overall Former Student Evaluations of the Academy?

Former students were asked what they had liked best about the Academy program. Responses to this open-ended question were coded into general categories. Two program features constituted half or more of the comments made by both graduates and nongraduates. These were:

The freedom, independence, flexibility
The job site experience

The program features central to EBCE were the ones former students liked best. Table F-48 contains the full list of categories and percents.

Former students were also asked to recall what they had disliked most about the Academy program. Fourteen percent of the graduates' comments and 12% of the nongraduates' were that there was nothing they had disliked about the program. The most frequently cited dislikes (constituting 10% or more of the responses within each of the two groups of former students--graduates and nongraduates) were:

Poor administrative organization
Inadequate facilities; not enough teachers,
job sites; building and library too small

When considering the two former student groups separately, other interesting dislikes emerge. Nineteen percent of the responses of the graduates concerned "broken promises," and 10% of the responses of the nongraduates indicated that they felt the program was too loose and permissive. Both groups cited poor staff-student communication with some frequency. The complete information on former students' responses to this question is contained in Table F-49.

What Did the Former Students Learn in the Academy?

The former students were given a list of 14 learning areas and was asked how much had been learned in each area--a lot, some, or little/none. Though there were no areas in which half or more of the nongraduates recalled they had learned "a lot", at least half the graduates recalled learning "a lot" in nine of the areas. These were:

- Ability to communicate with other students
- Ability to communicate with adults
- Awareness of job opportunities
- Math skills
- Getting along with other people
- Knowing what own capabilities are and what one likes to do
- Job seeking skills
- Career planning
- Reading skills

Improvement of communication skills was most widely remembered by both groups as a major learning outcome of participation in the Academy. Learning about job opportunities, a central features of EBCE, and development of math skills were also prominent in the memories of the former students.

Specific job skills were the area in which the least learning was remembered. Twenty-two percent of the graduates and 43% of the nongraduates recalled learning little or nothing in this area while in EBCE. A more general orientation to the world of work and interpersonal relationships had been the focus among the former participants interviewed. Table F-50 presents more information about former students' recollections of learning in the Academy.

What Do Former Students Think
the Academy Did for Them?

Over three-fourths of the Academy graduates and half the nongraduates felt that their EBCE experiences had had a positive effect on their preparation for further education, preparation for employment, and pursuit of a selected career.

Responses to the question about what kinds of things learned in the Academy had proved to be most useful to former students in their current circumstances were coded into categories. The most frequently mentioned areas (constituting at least 10% of the responses of either graduates or nongraduates) were:

- Career planning, experience; finding out
likes, dislikes
- Specific academic skills, i.e., math, English
- Specific job skills
- Responsibility, confidence
- How to communicate with adults and peers

A wide range of things learned in the Academy were considered by the group to have proved to be particularly useful now. Career planning and job seeking activities were mentioned most frequently. It is interesting to note that specific job skills were among the list of "usefuls", though a large proportion of students indicated that this kind of learning was not emphasized during their stay at the Academy. Almost one-third of the nongraduates said that nothing they had learned while in EBCE was particularly useful to them.

Tables F-51 and F-53 provide additional information relevant to this question.

What Do Former Students Wish EBCE
Could Have Done for Them?

Former students were asked how often nine situations existed when they were in the Academy--almost always, usually, sometimes, rarely, or hardly ever. Since the situations presented were desirable ones, former student responses of "rarely" or "hardly ever" may be indications of program deficiencies. Below are listed the four situations which at least 10% of either the graduates or nongraduates recalled had occurred "rarely" or "hardly ever."

Student received feedback on how well he was
doing
Staff members gave students enough direction
and guidance for studies
Staff members gave student good advice
Cluster experiences were interesting

Lack of feedback was the most widely remembered rarity,
with about one-sixth of the former students reporting
they had rarely or hardly ever received information that
indicated how well they were doing in EBCE. It should be
noted, however, that an infrequent occurrence of a situa-
tion does not necessarily mean there is a problem because
of it. Within a framework of independent study and
individualized learning activity, the respondent may be
indifferent about receiving feedback.

When asked what changes they would like to see made
in the Academy program, former students suggested a wide
variety of categories of change. Four areas comprised at
least 10% of the responses of at least one of the former
student groups. These were:

Clusters should be improved; more time at job
sites; opportunity to take clusters over
again
Expand the program; make it available to more
students
Reduce load on staff; need more and better
teachers
Provide more instruction in basic skills--
math, English

Nearly one-fourth of all former students would like
changes made in the cluster experiences--more time at job
sites and more time and involvement within each cluster
subject. Such comments may be at least a partial reflec-
tion of fond memories of the cluster experiences that
were encountered through EBCE.

Tables F-54 and F-55 provide more information on
this question.

What are Former Students' Current Activities and Plans?

Educational Experience Since the Academy. Thirty-
four percent of the EBCE graduates and 25% of the nongrad-
uates were in some type of educational program at the
time they were interviewed. The large majority of them
were engaged in full-time study. One graduate and a

third of the nongraduate former students were not in school when interviewed but had been enrolled at some time since leaving the Academy.

Half of the graduates who had continued their schooling had enrolled in two-year colleges, and another one-third were attending four-year colleges. Most of the nongraduate continuing students (72%) had returned to regular day high schools. A variety of subjects and skills were reported being learned. The most frequently cited area of study, among the 12 Project TALENT areas, was secretarial/clerical or office work.

Current Educational Aspirations. Those former students with educational experience since EBCE were asked what kinds of subjects or skills they would like to learn about in the next five years. Topical interests, coded into 12 categories (Project TALENT), were most frequently voiced in the areas of technical work and business administration.

These respondents were also asked the level of formal education they planned to complete. One-third of both the graduates and nongraduates who had continued their education after the Academy were anticipating completion of four year college degrees. Another 42% of the graduates and 11% of the nongraduates were planning on completing Master's or Doctor's degrees. A substantial proportion of the nongraduates (22%) did not know how far they wished to pursue their formal education.

Work experience Since the Academy. At the time they were interviewed, half or more of the former students in each group were employed, with slightly greater numbers in full-time than in part-time positions. An additional three graduates and four nongraduates were not employed when interviewed but had had work experience since leaving EBCE. Responses about kind of work done were coded into the 12 occupational areas of Project TALENT. The great majority of the work experience had been in the area of general labor, community and public service, followed by secretarial/clerical or office work experience.

Career and financial aspirations. Former students with work experience were asked what kind of job they hoped to have five years from now. When considering graduates and nongraduates together, job descriptions (coded into the 12 categories) focused on three areas-- general labor, community and public service, humanities/ social sciences, and secretarial/clerical/office work. A large number of the graduates (21%) were also interested in the field of proprietors/sales.

All the former students interviewed were asked about their financial aspirations. About one-third of them indicated they felt they could attain in five years an annual income of \$10,000 to \$15,000, considered average by today's standard of living. Most of the rest of the group had higher aspirations, indicating plans for future incomes of at least \$20,000.

In summary, about 40% of the former students have been enrolled in some type of educational program after leaving the Academy, the graduates generally attending two-year colleges and the nongraduates transferring to other high schools. More than half of the former participants had found employment, predominantly in jobs in the area of general labor, community and public service. Aspirations of the graduates were centered on college degrees and above average incomes.

A good deal more information about the educational and occupational status and aspirations of former Academy students can be obtained from perusal of the Tables in Appendix F. Tables F-40 through F-42 and F-47 contain information on work experience and future plans. Tables F-43 through F-46 contain information on educational experience and aspirations.

How Do The Resource Persons Feel About EBCE and Their Role Within It?

Though the EBCE model developed by RBS was substantially different from the other models in terms of student time at resource sites, the experiential aspect of the program still emerged as its greatest strength when viewed through the eyes of the community participants. A significant number (25%) made some comment about poor coordination and lack of feedback to the community participants.

As discussed in Chapter 2, experience sites for the Academy were stratified according to whether they offered exploration or specialization experiences and according to the quarter of the school year in which they were utilized. The sites for surveys in each stratum were selected randomly. A total of 48 out of 50 planned surveys were actually obtained.

This section outlines the responses of several questions of interest to NIE. The results of the total questionnaire are presented in Appendix F, beginning with Table F-56.

How did the Resource Organizations Become Involved in EBCE?

Of the 48 Employer Coordinators interviewed, 25 (52%) indicated that contact with EBCE staff had precipitated their participation. A significant proportion (23%) had been contacted by someone from another organization. Someone from within their organization had been responsible for encouraging participation in 13% of the cases. Three of the Employer Coordinators had been contacted by students in the program. Between- and within- organization contact and information flow seems to have significantly affected the resource pool in Philadelphia. Table F-56 provides the full breakdown of responses in this area.

What Were the Skills and Knowledge Imparted by the Employer Coordinators?

Because of the nature of this program, it seemed most appropriate to ask the Employer Coordinators what percentage of time was devoted to various activities while students were on site. Because of the limited time (one day per week) students were at employer sites, the experiences were not expected to contribute significantly to cognitive skill growth. The activities at employer sites seem to be intended to contribute primarily to the development of career awareness. The largest blocks of student time at employer sites were spent in interacting with employees on site and in trying out different aspects of jobs. Table F-83 presents this information in more detail.

How Do RP's Assess Skills Taught?

Employer Coordinators for RBS contribute grades for students work at their sites (c.f., Volume V). Therefore, it is not surprising that a variety of methods were used in the assessment of students. Virtually all employer coordinators indicated that some evaluation procedures were utilized at their sites.

The most commonly mentioned evaluations were tests, rating forms, and assessment of student interest or effort, which took into account such factors as attendance, punctuality and appearance. Table F-77 presents the complete breakdown of responses in this area.

In a majority of cases (59%) these evaluative procedures had been developed by the resource site organization

or an individual within the organization. EBCE staff were named by 20% as the originators of their assessment mechanisms. (See also Table F-78.)

Do Employer Coordinators Fill Any Non-Instructional Roles in the Program?

Student selection for employer site participation. Though a majority of those interviewed felt that they had no part in the selection process, a substantial minority (38%) felt that they did.

Two roles emerged in relation to student selection for site participation. Eight of the respondents indicated that they screened students for interest and capabilities. (This was a factor in placing students within the organization as well as in selection.) Nine indicated that they reserved the right to turn down students who did not seem suited to their sites. Table F-73 contains more information in this area.

Curriculum development. Only two of the respondents felt that they had assisted in developing the Academy curriculum in general.

However, a large minority (27%) indicated that their organization alone decided what the students learned while assigned to that site. An additional 63% indicated some involvement in this decision in combination with Academy staff and students. Tables F-66 and F-74 can be consulted for more information on this question.

Policies of the Career Education program. Of those interviewed, 29% felt that they had had a role in helping to develop the policies of the EBCE program. Six Employer Coordinators indicated that their contribution had been in the form of suggestions, participation in planning sessions concerning their organization's involvement in the program, or attendance at cluster or counselor meetings. Three indicated that they were members of the Advisory Council or some related committee. Surprisingly, considering the responses in connection with initial involvement in the program, none of the respondents indicated that they had helped to develop other employer sites. (See also Table F-66.)

What Are the Benefits and Disadvantages of the EBCE Program as Perceived by the Employer Coordinators?

To the organization. The majority of those interviewed (56%) felt that their participation in the program

had no general impact on their organization. A substantial minority (35%) felt that there was a good impact. Only two of the Employer Coordinators felt that involvement had a bad impact, and one indicated that the impact was a mixed blessing.

A variety of benefits and disadvantages to the organization, attendant to EBCE participation, were cited by the respondents. Over half, however, centered around two factors of direct advantage to the organization: exposure in the community; and the productive assistance which students provided. This question was also asked relative to the employees who worked with the students. Slightly less than half of those interviewed (22 respondents) cited an improvement of employee morale or the working environment attributable to participation in the program and of benefit to the employees working with the students. About one-quarter (11 respondents) mentioned the advantages of the information flow from students to employees. The only disadvantage that was put forth was the loss or cost in time, and this factor was mentioned by only five of the respondents.

Additional information relevant to this question is provided in Tables F-60, F-61, and F-62.

To the students. With two exceptions, the employers responding could think of things which students could learn better in the EBCE setting than in a traditional high school. The majority mentioned practical learning and experience in the "real world" as an advantage of the program. The breakdown of responses concerning what things are better learned through participation in EBCE is shown in Table F-82.

When asked whether or not they felt students gained from their experiences, the employer coordinators responded positively. Well over half of their comments centered around gains associated with the experiential nature of the program. Gains in terms of realistic career focus were mentioned slightly more frequently than personal maturation. (See also Table F-81.)

The respondents were also asked to characterize student interest in and enjoyment of the program activities on a five point scale. The majority characterized both interest and enjoyment as high or very high (71% for interest; 80% for enjoyment). Tables F-79 and F-80 detail these responses.

Are EBCE Students Prospective Employees
of Resource Organizations?

Eight of the employer coordinators (17%) indicated that former students had been hired as regular employees of their organizations; 35 (73%) indicated that they had not. The remaining 10% either did not respond to the question or did not know. (See also Table F-85.)

Can Present EBCE Resources Expand
Their Participation?

The majority of those interviewed (63%) felt that their organization would take about the same level of students that it currently dealt with, were it to continue involvement in the program. Ten respondents (21%) indicated that their organization could increase its student load; and four (8%) indicated that their organization would decrease its commitment in terms of numbers of students. Table F-64 provides the full breakdown of responses to this question.

What Relationships Do Resource Organizations
Have with Other Secondary School Projects?

Twenty-three of the employer coordinators (48%) indicated that their organizations were involved in educational programs other than EBCE. Twenty participated in work experience programs, summer placements, or volunteer programs. Six organizations conducted tours, lectures, or career conferences. Four of the organizations were educational in function, having no other purpose; and two of the organizations participated in Neighborhood Youth Corps. (See also Table F-84.) It would seem that organizations that participate in other educational programs are likely participants in an EBCE model patterned on the Academy.

CHAPTER 7

AN OVERVIEW ACROSS SITES

The preceding chapters of this volume provide specific information about participant opinions and student outcomes in the EBCE schools. The appendices to the volume contain even more detail. Preceding chapters also provide a discussion of the general nature of EBCE and the specific processes used at each laboratory site, a brief history of the external evaluation effort, and summarizations and possible interpretations of the findings at each site.

It would be redundant to repeat here the summarizations and discussions of the results obtained at the separate sites. It is appropriate, however, to review briefly the major findings which occur across all sites. In this summary we make no attempt to assess any possible relative effectiveness of the separate EBCE programs. Descriptions in the preceding chapters indicate the four laboratories did adhere to the "directed development" mandate from NIE which prescribed a common set of program parameters (Chapter 1). However, there are sufficient differences in the enrolled student populations, geographical and community contexts, length and nature of the particular experiences provided students, staffing, and processes used at the four sites that any attempt to assess relative effectiveness would be inappropriate.

We discuss here the principal findings from the four respondent groups -- parents, former students, students, and resource persons/organizations -- which were the targets of interest in the external evaluation.

Parent Evaluations

In our judgment, one strong, clear signal emerges above all others from the data: overwhelming parental support of the EBCE programs. While there are minor differences in the percentages of the four populations of parents expressing unequivocal or only mildly tempered favor for the separate school programs, typically around 85 percent or more of parents at each site stated that the overall EBCE experience was better than the previous school experiences provided their children. In describing how the program was better, parents usually pointed to the experiential nature of the program. Parents said the opportunity to experience directly the world of work

and the community outside the traditional school walls provided more motivation for their children to learn. Among the major consequences of the direct experience and improved motivation of students were increased maturity, responsibility and self-confidence, and improved interpersonal skills, particularly in relationships with adults.

When asked about particular strengths of the EBCE schools, parents again pointed to the opportunity to learn directly in the world of work, and to the individual attention given their children by Learning Coordinators and counselors. The actual learning of job skills, awareness of job opportunities, or making career decisions was mentioned by smaller percentages of parents; again, there are variations across sites.

Parental expectations of what the students would gain from the EBCE programs (as parents understood EBCE at the time of their children's enrollments) was generally in high correspondence with what parents thought students had learned or achieved. High percentages (80 to 95 percent at different sites) would want their children to enroll again in the EBCE schools if given the opportunity, and similarly high percentages noted that almost all changes observed in their children that might be attributed to EBCE participation were positive.

When asked about weaknesses in the program, parents at some sites either said there were no weaknesses or, if students had encountered difficulties or problems because of program weaknesses, the problems had generally been resolved successfully. Smaller percentages of parents indicated they thought the EBCE programs did not pay sufficient attention to the development of basic academic skills and did not provide adequate preparation for college.

Resource Persons and Organizations Evaluations

Strong signals of support for the idea of something like EBCE also come from resource persons and organizations. Their conceptualizations of what the traditional school provides, so far as assisting students in the transition from school to work, is that the traditional school does not do an effective job in providing this transition. The opportunity to provide direct experience in the community, "realistic" learning experience, contact with adults outside

school, and exploration of careers is seen by resource persons and organizations as the greatest strength of the EBCE programs. Resource persons seemed more at ease in providing students with experience about job-related aspects of work than they did in providing an academic-career blend of experience.

High percentages (85 percent or more) of resource organizations would expect to continue involvement with the EBCE programs, if offered the opportunity to do so, and would recommend participation to other organizations. Usually any continued participation would be at about the level of current participation. Participating organizations indicate that participation usually comes at little or no financial cost to them, and the quantity of work performed by regular employees is usually not affected by the presence of EBCE students. EBCE participation enhances the organization's commitment to the community and has other positive effects within the organization itself. The presence of students is said to improve employee morale and the working environment, be personally satisfying to staff who assume the teaching function, and (in some instances) to improve the organization's own training program.

When resource persons are questioned about weaknesses in the program, they most frequently point to a lack of field supervision of students by EBCE staff. Those students who are unable to supervise themselves or who appear to be disinterested in the resource site placement apparently need more intervention on their behalf or field supervision by Learning Coordinators, counselors, or others.

Former Student Evaluations

Clearly, the EBCE programs are remembered positively by the former students interviewed during this evaluation. Overall, former students indicate the best-liked features of EBCE were the freedom to learn at their own pace along patterns of interest, freedom to choose their learning activities, and the resource site experiences. These former students usually state that the most useful learning they accrued during their period of enrollment was an improvement of the ability to communicate with adults and peers, and to understand others. These most useful learnings are typically remembered also as the areas in which most learning occurred. Career planning, specific job

skills, and an awareness of job opportunities are also cited frequently as areas of most useful learnings. With exceptions at one site, former students generally remember improvement in basic academic skills such as reading and mathematics as areas in which EBCE had little or no effect.

What did EBCE do for these former students? They say the experience helped them know how to relate to and prepare for the "real world"; to communicate better with adults; to develop career plans and have career-related experiences; to develop responsibility and self-confidence; and to know something about how to find and get a job. Our interpretation is that the EBCE experiences were considered by most of the group to be important preparation for the adult, working world.

These former students tend to have fairly high educational aspirations. The majority had been enrolled in some type of educational program since leaving the EBCE schools and 30 to 60 percent (figures vary by site) were enrolled in formal study at the time of interviewing. Higher percentages of EBCE program graduates were enrolled than program non-graduates. Enrollment is typically at four-year or two-year institutions, rather than in short-term training programs, and most of those enrolled or planning to enroll in formal study indicate they aspire to the baccalaureate degree. The subject areas of enrollment or planned enrollment vary considerably across the Project TALENT categories used in this study. Teaching, social science, medical and biological science are frequently mentioned as major areas of study.

At the time of interviewing, most of those students who were not enrolled in educational study were working, predominantly in full-time, rather than part-time, employment. Other former students had been employed and were currently seeking work at the time of interview. Typical areas of employment were in general labor and community and public service. Financial aspirations of most of those interviewed were about average (\$10,000 to \$15,000 a year) by today's standard of living.

When asked to provide suggestions for improvement in the EBCE programs, former students most frequently suggested that more and more varied resource site experiences be provided. It seems clear that former students remember their resource site experiences, a central feature of EBCE, with strong positive feelings. Although former students remember the freedom they were allowed during their EBCE enrollment as a prized feature, many at the same time suggest there should be more supervision of student activities, particularly at the resource sites. Despite any misgivings about

certain program features, nearly all former students indicate they would enroll again in EBCE schools if given the opportunity.

Student Outcomes and Opinions

As indicated in Chapter 1 of this volume, the measurement of student outcomes in the four EBCE schools was to be directed toward determining achievement in nine goal areas which were held to be common to the four EBCE sites. Control groups of pupils from an applicant population were provided for a study of the relative effectiveness of the EBCE and traditional schools.

We have also indicated in Chapter 1 the attempts made to locate or develop instruments which were appropriate for the measurement of achievement in the nine goal areas. Ultimately, reliance was placed on an in-depth interview (described briefly in Chapter 2 of this volume and completely in Volume VII) and a standardized test of basic skills as the most acceptable measures that could be located or developed. These instruments do not measure in all of the common goal areas and are perhaps imperfect for those in which they do. Nevertheless, from their use some tendencies or tentative conclusions emerge, although frequently not at a level of statistical confidence prized by program developers or evaluators. The major tentative conclusions which emerge across all sites follow.

Students in the EBCE schools tend to mention long-range factors such as personal interest and enjoyment, requirements for successful entry, and academic planning in considering careers of interest. Control students tend to mention such factors as job availability and reward more often.

EBCE students tend to have some interest in and knowledge of a greater number of career areas than do controls.

EBCE students know more of the personal and school-related characteristics and abilities that are necessary for entry into careers of interest than do controls.

EBCE students are not significantly more consistent in choosing careers of interest that are compatible with knowledge they have of themselves than are controls.

EBCE students are more positive in their attitude toward career planning, feeling that they can have some control over choices of careers and can consider a variety of careers, than are controls.

EBCE students are better able to respond orally to interviewers' complex questions, providing answers that are to the point and brief, than controls.

There is no evidence from the test of basic skills that EBCE participation has resulted in either any particular gain or loss in reading or mathematics achievement for the enrolled students.

Enrolled students look upon their EBCE experiences with strong positive feelings. Nearly all students interviewed say they would enroll again in EBCE if given the opportunity. Control students are aware of this aura of good feeling and a high majority indicate they would like to apply again for enrollment.

The desire to enter the EBCE schools seems to come from a desire of both enrolled students and controls to be provided the career-related features central to the model, rather than to escape from the traditional high school.

Congruence of Findings

A review of the information gathered from the four respondent groups indicates there is a high degree of congruence among their more strongly held opinions. These opinions can be related to those achievements of EBCE students which we have been able to measure with some consistency.

Resource persons and organizations state a strong belief in the need for a program which assists students in the transition from school to work. Parents, former students, and enrolled students agree that the career- and community-related experiential opportunities provided through resource organization cooperation are the most productive and best-liked features of the program. These opportunities are the major program features designed to provide the transition which resource persons see as lacking

in traditional schools. Freedom to select learning content and to learn at one's own pace are associated in the thinking of students and former students with the experiential features.

The EBCE experiences are seen by all respondent groups as important and useful preparation for the adult world. A consistent finding (as noted through student behavior during the in-depth interview) associated with preparation for the adult world is that EBCE students appear to face the future with more confidence, feeling that they can have some control over their choice of careers, can consider a wider variety of careers, and know more of the required characteristics for entry into a career path than do control students.

Belief in the need for something like EBCE preparation is associated with belief in the goodness of the program that was provided. High percentages of parents at each site state that the EBCE set of experiences was better than the previous school experiences provided their children. Students and former students, as evidenced by indications of preference to enroll again if given the opportunity, appear to agree with their parents. Resource organizations plan to continue their association with EBCE schools, if invited to do so. And more specifically, parents notice a number of positive developments in their children which they attribute to the EBCE participation. Improved interpersonal skills are frequently mentioned, and students and former students agree with parents that getting along with others, particularly adults, was an area in which they had improved most. Communication skills (one aspect of interpersonal skills) are noted as being improved by parents, students, and former students, and information developed through the in-depth interview indicates that EBCE students were more able to respond to interviewers' complex questions than were controls.

The resource site experiences, which are seen by resource persons and organizations as being missing in the traditional schools, are prized by students and former students, who state that there should be more such experiences, and a wider variety. Features of the program which are directed at academic skills are less well regarded by the respondent groups, but they have been successful in preventing academic regression, even though most students did not attend regular English and mathematics classes. Resource persons express more confidence in their ability to assist students with experiences about job-related aspects of work than to provide an academic-career blend of experiences. Parents express some concern that the EBCE programs did not pay sufficient attention to the improvement of basic skills. Students and former students do not remember that they improved much in the academic skills and data from the test of basic skills which was administered

substantiate that currently enrolled students experienced neither any particular actual or comparative gain or loss during their period of enrollment.

Despite any expressed concerns or misgivings about certain features of the program, parents, students, and former students seem in general agreement that what students had learned or achieved in EBCE was in high correspondence with their expectations at the time of enrollment. Therefore, their evaluations seem to be that the EBCE schools fulfilled the promises made at the time of recruitment and enrollment.

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